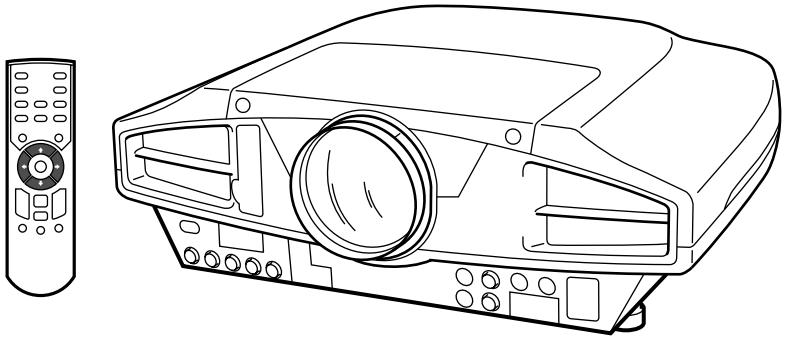
SERVICE MANUAL

MODEL	DEST.
VPL-FX50	WORLD

MODEL	DEST.
RM-PJM50	WORLD



LCD DATA PROJECTOR

SONY

⚠警告

このマニュアルは，サービス専用です。
お客様が，このマニュアルに記載された設置や保守，点検，修理などを行うと感電や火災，人身事故につながることがあります。
危険をさけるため，サービストレーニングを受けた技術者のみご使用ください。

⚠WARNING

This manual is intended for qualified service personnel only.
To reduce the risk of electric shock, fire or injury, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so. Refer all servicing to qualified service personnel.

⚠WARNUNG

Die Anleitung ist nur für qualifiziertes Fachpersonal bestimmt.
Alle Wartungsarbeiten dürfen nur von qualifiziertem Fachpersonal ausgeführt werden. Um die Gefahr eines elektrischen Schlages, Feuergefahr und Verletzungen zu vermeiden, sind bei Wartungsarbeiten strikt die Angaben in der Anleitung zu befolgen. Andere als die angegeben Wartungsarbeiten dürfen nur von Personen ausgeführt werden, die eine spezielle Befähigung dazu besitzen.

⚠ AVERTISSEMENT

Ce manual est destiné uniquement aux personnes compétentes en charge de l’entretien. Afin de réduire les risques de décharge électrique, d’incendie ou de blessure n’effectuer que les réparations indiquées dans le mode d’emploi à moins d’être qualifié pour en effectuer d’autres. Pour toute réparation faire appel à une personne compétente uniquement.

WARNING!!

AN INSULATED TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY A ⚠ MARK ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION!!

AFIN D’ÉVITER TOUT RISQUE D’ÉLECTROCUTION PROVENANT D’UN CHÂSSIS SOUS TENSION, UN TRANSFORMATEUR D’ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE.
LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ Á L’ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS Á LA SÉCURITÉ!!

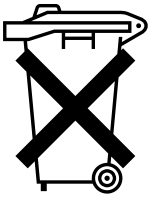
LES COMPOSANTS IDENTIFIÉS PAR UNE MAPQUE ⚠ SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIECES SONT D’UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÈCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY.

Voor de klanten in Nederland

Dit apparaat bevat een CR1220 batterij voor memory back-up.

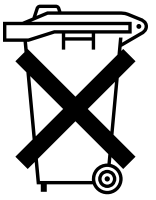
Raadpleeg uw leverancier over de verwijdering van de batterij op het moment dat u het apparaat bij einde levensduur afdankt.

Gooi de batterij niet weg. maar lever hem in als KCA.



Raadpleeg de instructies in deze handleiding voor het verwijderen ven de batterijen.

For the customers in the Netherlands
Voor de klanten in Nederland



Bij dit produkt zijn batterijen geleverd. Wanneer deze leeg zijn, moet u ze niet weggooien maar inleveren als KCA.

Für Kunden in Deutschland

Entsorgungshinweis: Bitte werfen Sie nur entladene Batterien in die Sammelboxen beim Handel oder den Kommunen. Entladen sind Batterien in der Regel dann, wenn das Gerät abschaltet und signalisiert “Batterie leer” oder nach längerer Gebrauchsdauer der Batterien “nicht mehr einwandfrei funktioniert”. Um sicherzugehen, kleben Sie die Batteriepole z.B. mit einem Klebestreifen ab oder geben Sie die Batterien einzeln in einen Plastikbeutel.
Auf welcher Weise die Batterie adzunehmen ist, sishe den entsprechenden Hinweis in dieser Anleitung.

CAUTION

Danger of explosion if battery is incorrectly replaced.

Replace only with the same or equivalent type recommended by the manufacturer.
Dispose of used batteries according to the manufacturer’s instructions.

Vorsicht!

Explosionsgefahr bei unsachgemäßem Austausch der Batterie.

Ersatz nur durch denselben oder einen vom Hersteller empfohlenen ähnlichen Typ. Entsorgung gebrauchter Batterien nach Angaben des Herstellers.

ATTENTION

Il y a danger d’explosion s’il y a remplacement incorrect de la batterie.

Remplacer uniquement avec une batterie du même type ou d’un type équivalent recommandé par le constructeur.
Mettre au rebut les batteries usagées conformément aux instructions du fabricant.

ADVARSEL!

Lithiumbatteri-Eksplosionsfare ved fejlagtig håndtering.
Udskiftning må kun ske med batteri af samme fabrikat og type.
Levér det brugte batteri tilbage til leverandøren.

ADVARSEL

Lithiumbatteri - Eksplosjonsfare.
Ved utskifting benyttes kun batteri som anbefalt av apparatfabrikanten.
Brukt batteri returneres apparatleverandøren.

VARNING

Explosionsfara vid felaktigt batteribyte.
Använd samma batterityp eller en likvärdig typ som rekommenderas av apparattillverkaren.
Kassera använt batteri enligt gällande föreskrifter.

VAROITUS

Paristo voi räjähtää jos se on virheellisesti asennettu.
Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiin.
Hävitä käytetty paristo valmistajan ohjeiden mukaisesti.

http://getMANUAL.com

Table of Contents

1. Operating Instructions

Operating Instructions 1-1
Installation Manual for Dealers 1-21

2. Service Information

2-1. Circuit Boards Location 2-1
2-2. Top Cabinet Assy Removal 2-2
2-3. H Board Removal 2-2
2-4. Front Panel Assy Removal 2-3
2-5. GA Board Removal 2-3
2-6. GB and S Boards Removal 2-4
2-7. Lamp Power Removal 2-4
2-8. C Board Removal 2-5
2-9. Optics Unit Assy and S Board Removal 2-5
2-10. QC Board Removal 2-6
2-11. BA, BB and BC Boards Removal 2-6
2-12. QA and QB Boards Removal 2-7
2-13. Lens Assy Removal 2-7
2-14. Prism Block and Polarizer Removal 2-8
2-15. Extension Board Connection 2-8
2-16. Power Cord 2-9

3. Electrical Adjustments

3-1. Preparations 3-1
3-1-1. Equipment Requitred 3-1
3-1-2. Setting the Factory Mode 3-1
3-2. Adjust R, G, B, VCOM 3-1
3-3. Adjust Signal Center 3-1
3-4. Adjust Signal Level 3-2
3-4-1. Component Level Adjustments 3-2
3-4-2. Adjust X2 Component Level 3-2
3-4-3. Adjust 15K RGB Level 3-2
3-4-4. Adjust VIDEO NTSC Level 3-3
3-5. Adjust W/B HIGH Mode 3-3
3-5-1. W/B HIGH Adjustments 3-3
3-5-2. Adjust RGB W/B LOW Mode 3-4
3-5-3. Adjust Component Y Level 3-5

3-6. Adjust VIDEO W/B 3-5
3-6-1. W/B HIGH Mode Adjustments 3-5
3-6-2. Adjust W/B LOW Mode 3-6
3-7. Calibration Adjustments 3-6
3-8. How to adjust at replacing a Prism or an Optical Unit 3-6
3-8-1. VCOM Adjust 3-6
3-8-2. Adjust Polarizing Plate 3-6
3-8-3. 3Dγ Overview 3-6
3-8-4. Procedures to adjust 3Dγ 3-7
3-9. Memory 3-7
3-10. Adjustment Item Initialize Data 3-9

4. Descriptions of Circuit Board Operations

4-1. QB Board 4-1
4-1-1. Communication with CPU through RS232C 4-1
4-1-2. Reception of Remote Control Signals (SIRCS) 4-1
4-1-3. Input of the Video Signal 4-1
4-2. BA Board 4-1
4-2-1. Functions of the main ICs 4-1
4-2-2. Flow of Signal 4-1
4-2-3. Flow of SYNC Process 4-2
4-3. BC Board 4-2
4-3-1. Reception and Decoding digital signals (TMDS) 4-2
4-3-2. Reception of Analog Signals 4-2
4-3-3. DDC Communication 4-2
4-4. GA, GB Board 4-3
4-4-1. GA Board 4-4
4-4-2. GB Board 4-9
4-5. BB Board 4-11
4-5-1. Part of Input 4-11
4-5-2. A/D Converter 4-11
4-5-3. CXD9606 (IC3040) 4-11
4-6. C Board 4-11
4-6-1. Overview 4-11
4-6-2. Video Signal Processing 4-12
4-6-3. Control System 4-15
4-7. Main CPU: H8S/2633(TFP-120) PIN Assign 4-16

5. Semiconductors

6. Spare Parts

6-1. Notes on Repair Parts 6-1
6-2. Exploded Views 6-2
6-3. Electrical Parts List for Boards 6-7
6-4. Parts List for Frame 6-38
6-5. Packing Materials 6-39

7. Block Diagrams

QA, QB Boards Block Diagram 7-1
BC, H Boards Block Diagram 7-2
BA Board Block Diagram 7-3
BB Board Block Diagram 7-4
C, CN Boards Block Diagram 7-6
GA Board Block Diagram 7-8
GB Board Block Diagram 7-9

8. Diagrams

8-1. Frame Schematic Diagram 8-1
8-2. Schematic Diagrams and Printed Wiring Boards 8-3

Schematic Diagrams

BA (1/3) 8-4
BA (2/3) 8-5
BA (3/3) 8-6
BB (1/10) 8-8
BB (2/10) 8-9
BB (3/10) 8-10
BB (4/10) 8-11
BB (5/10) 8-12
BB (6/10) 8-13
BB (7/10) 8-14
BB (8/10) 8-15
BB (9/10) 8-16
BB (10/10) 8-17
BC 8-20
C (1/7) 8-22
C (2/7) 8-23
C (3/7) 8-24
C (4/7) 8-25
C (5/7) 8-26
C (6/7) 8-27
C (7/7) 8-28

GA (1/3) 8-32
GA (2/3) 8-33
GA (3/3) 8-34
GB (1/2) 8-36
GB (2/2) 8-37
H 8-40
QA 8-42
QB 8-44
N, S, T 8-46

Printed Wiring Boards

BA 8-7
BB 8-19
BC 8-21
C 8-29
GA 8-35
GB 8-38
H 8-41
QA 8-43
QB 8-45
N, S 8-46

SONY

4-082-642-**11**(1)

LCD Data Projector

Operating Instructions GB

Mode d'emploi FR

Manual de instrucciones ES

VPL-FX50

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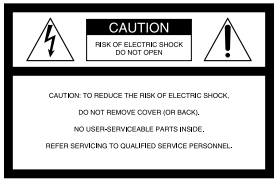
Section 1
Operating Instructions

This section is extracted from operation manual.

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

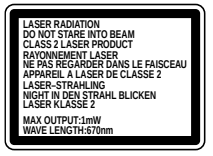
This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

For the customers in the USA

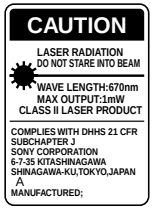
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.



This label is located on the rear of the Remote Commander.

This label is located on the side of the Remote Commander.



This label is located on the rear of the Remote Commander.

This label is located on the rear of the Remote Commander.

Laser light shines out of this window.

Caution

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Notes

- Do not aim the laser at people or not look into the laser transmitter.
- When the Remote Commander causes malfunction, consult with qualified Sony personnel. We change the Remote Commander as new one according to the guarantee.

For the customers in Canada

This Class A digital apparatus complies with Canadian ICES-003.

For the customers in the United Kingdom

WARNING
THIS APPARATUS MUST BE EARTHED

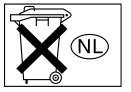
IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

Green-and-Yellow:	Earth
Blue:	Neutral
Brown:	Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:
The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol ⏚ or coloured green or green-and-yellow.
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

Voor de klanten in Nederland



Bij dit product zijn batterijen geleverd. Wanneer deze leeg zijn, moet u ze niet weggooien maar inleveren als KCA.

The socket-outlet should be installed near the equipment and be easily accessible.

Apparaten ma kun tilkoples jordet stikkontakt.
Apparatet må kun tilkoples jordet stikkontakt.

Warning on power connection

Use a proper power cord for your local power supply.

	The United States, Canada		Continental Europe		UK, Ireland, Australia, New Zealand	Japan
Plug type	VM0233	290B	YP-12A	COX-07	—[1)]	YP332
Female end	VM0089	386A	YC-13B	COX-02	VM0310B	YC-13
Cord type	SJT	SJT	H05VV-F	H05VV-F	N13237/CO-228	VCTF
Rated Voltage & Current	10A/125V	10A/125V	10A/250V	10A/250V	10A/250V	7A/125V
Safety approval	UL/CSA	UL/CSA	VDE	VDE	VDE	DENTORI

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Table of Contents

Overview

Precautions ..... 7 (GB)
Features ..... 8 (GB)
Location and Function of Controls ..... 9 (GB)
Front ..... 9 (GB)
Rear/Bottom ..... 9 (GB)
Control panel ..... 10 (GB)
Connector panel ..... 12 (GB)
Remote Commander ..... 13 (GB)

Setting up and projecting

Installing the Projector ..... 14 (GB)
Connecting ..... 15 (GB)
Connecting with a Computer or a VCR ..... 15 (GB)
Connecting with a 15k RGB/Component Equipment ..... 16 (GB)
Connecting to LAN ..... 16 (GB)
Selecting the Menu Language ..... 18 (GB)
Projecting ..... 18 (GB)

Adjustments and settings using the menu

Using the MENU ..... 21 (GB)
The PICTURE CTRL Menu ..... 22 (GB)
The INPUT SETTING Menu ..... 23 (GB)
The SET SETTING Menu ..... 25 (GB)
The INSTALL SETTING Menu ..... 26 (GB)

Installation

Installation Example ..... 28 (GB)
Notes for Installation ..... 29 (GB)
Unsuitable Installation ..... 29 (GB)
Unsuitable Conditions for Use ..... 29 (GB)

Maintenance

Maintenance ..... 30 (GB)
Replacing the Lamp ..... 30 (GB)
Cleaning the Air Filter ..... 31 (GB)
Troubleshooting ..... 32 (GB)

Other

Specifications ..... 34 (GB)
Index ..... 37 (GB)

Precautions

On safety

- Check that the operating voltage of your unit is identical with the voltage of your local power supply.
- Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it further.
- Unplug the unit from the wall outlet if it is not to be used for several days.
- To disconnect the cord, pull it out by the plug. Never pull the cord itself.
- The wall outlet should be near the unit and easily accessible.
- The unit is not disconnected to the AC power source (mains) as long as it is connected to the wall outlet, even if the unit itself has been turned off.
- Do not look into the lens while the lamp is on.
- Do not aim the laser at people or not look into the laser transmitter.
- Do not place your hand or objects near the ventilation holes — the air coming out is hot.
- Be careful not to catch your fingers by the adjuster when you lift up the projector. Do not push hard on the top of the projector with the adjuster out.
- Be sure to grasp the both sides of the projector with both your hands when carrying the projector.

On illumination

- To obtain the best picture, the front of the screen should not be exposed to direct lighting or sunlight.
- Ceiling-mounted spot lighting is recommended. Use a cover over fluorescent lamps to avoid lowering the contrast ratio.
- Cover any windows that face the screen with opaque draperies.
- It is desirable to install the projector in a room where floor and walls are not of light-reflecting material. If the floor and walls are of reflecting material, it is recommended that the carpet and wall paper be changed to a dark color.

On preventing internal heat build-up

After you turn off the power with the I / ⏻ key on the Remote Commander or on the control panel, do not disconnect the unit from the wall outlet while the cooling fan is still running.

Caution
The projector is equipped with ventilation holes (intake) on the bottom and ventilation holes (exhaust) on the front. Do not block or place anything near these holes, or internal heat build-up may occur, causing picture degradation or damage to the projector.

On cleaning

- To keep the cabinet looking new, periodically clean it with a soft cloth. Stubborn stains may be removed with a cloth lightly dampened with a mild detergent solution. Never use strong solvents, such as thinner, benzene, or abrasive cleansers, since these will damage the cabinet.
- Avoid touching the lens. To remove dust on the lens, use a soft dry cloth. Do not use a damp cloth, detergent solution, or thinner.
- Clean the filter at regular intervals every 300 hours.

On repacking

Save the original shipping carton and packing material; they will come in handy if you ever have to ship your unit. For maximum protection, repack your unit as it was originally packed at the factory.

On LCD projector

The LCD projector is manufactured using high-precision technology. You may, however, see tiny black points and/or bright points (red, blue, or green) that continuously appear on the LCD projector. This is a normal result of the manufacturing process and does not indicate a malfunction.

Features

High brightness, high picture quality

• High brightness
The high aperture ratio LCD panel with a microlens and the 250 W UHP lamp provide high brightness (light output 3500 ANSI lumen) and excellent uniformity on the picture.

• High resolution
By adopting three 1.3-inch, approximately 790,000-pixels XGA panels, this projector can project sharp picture with the resolutions of 1024 × 768 pixels for RGB input, and 750 horizontal TV lines for video input.

• High picture performance
The DDE (Digital Detail Enhancer) technology, newly and originally developed by Sony, enables converting interlace format video signal to progressive format, allowing you to obtain a detailed picture. The technology also reproduces the film sources in 2-3 Pull-Down format with smooth picture movement.
The internal RGB enhancer provides sharper RGB pictures. The 10-bit 3D Digital Gamma correction for good picture uniformity is also provided.

Convenient and flexible setup

• Power zoom/power focus lens and the lens shift function
The projector is equipped with a 1.3-times power zoom and power focus lens, which allows you to change the size of the projected image without having to move the projector. The lens shift function enables you to install the projector in a wide range of locations, without worrying about trapezoid distortion. Also, three optional lenses are available for the projector, depending on your setup condition.

• Center positioned lens
The projector is designed to locate the lens in the center of the unit. This enables an easy setup, as the lens center aligns with the center of the screen.

• Tilt installation (in front and rear)
You can install the projector by tilting it 90 degrees at the rear or 90 degrees in front. You can use a mirror for rear projection.

• Twin stack installation
Thanks to the lens shift function, two projectors can be stacked, which improves the brightness of the image.

Multi scan compatibility

• DVI and 5BNC connectors
The projector has the DVI (Digital Visual Interface) connector, the up-to-date digital input connector, which allows you to connect to the digital or analog RGB equipment equipped with the DVI output. The 5BNC input connectors allow you to connect to workstation output high-resolution signals and to connect to a computer from a long distance.

The projector has 45 preset data for input signals in the memory, which allows you to project a clear picture on the screen simply by connecting equipment and pressing the APA (Auto Pixel Alignment) key.

• Accept various input signals
The projector accepts video signals of the composite, S video and component, and can also display the 15k RGB, DTV, HDTV, VGA[1)], SVGA[1)], XGA[1)], SXGA[1)] and UXGA[1)] (fV=60 Hz) signals.

• Scan converter built-in
The projector has a built-in scan converter which converts the input signal within 1024 × 768 pixels.

• Compatible with six color systems
NTSC$_{3.58}$, PAL, SECAM, NTSC$_{4.43}$[2)], PAL-M or PAL-N color system can be selected automatically or manually.

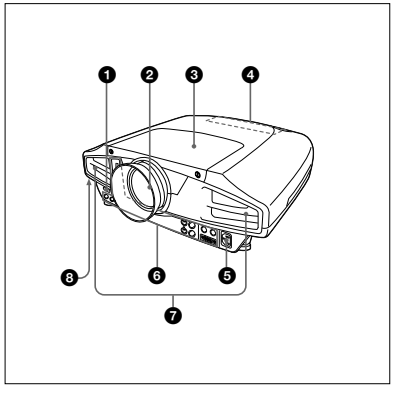
Other function

• Networking compatibility
The projector has the Microsoft[3)] Windows[3)] CE built in and is equipped with a PC CARD slot and ETHER connector, which allows you to connect to a wired or wireless LAN.
For information on the networking function of this projector, refer to the supplied Operating Instructions for Networking.

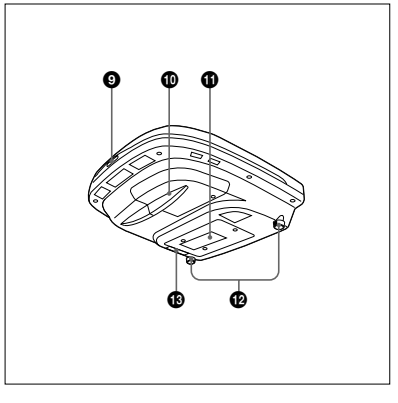
1) VGA, SVGA, XGA, SXGA and UXGA are registered trademarks of the International Business Machines Corporation, U.S.A.
2) NTSC$_{4.43}$ is the color system used when playing back a video recorded on NTSC on an NTSC$_{4.43}$ system VCR.
3) Microsoft and Windows are registered trademarks of Microsoft Corporation (U.S.A. and other countries).

Location and Function of Controls

Front



Rear/Bottom



❶ Front remote control detector

❷ Lens
Remove the lens cap before projection.

❸ Lens cover

❹ Control panel
For details, see "Control panel" on page 10 (GB).

❺ AC IN socket
Connects the supplied AC power cord.

❻ Connector panel
For details, see page 12 (GB).

❼ Ventilation holes (exhaust)

❽ Security lock
Connects to an optional security cable (Kensington's).

The security lock corresponds to Kensington's MicroSaver Security System.
If you have any comment, contact
Kensington
2853 Campus Drive, San Mates, CA 94403
U.S.A.
Tel: 800-535-4242: extension 3348
Home page address:
http://www.kensington.com/

❾ Rear remote control detector

❿ Lamp cover

⓫ Ventilation holes (intake)

Notes

- Do not place anything near the ventilation holes as it may cause internal heat build-up.
- Do not place your hand or objects near the ventilation holes — the air coming out is hot.

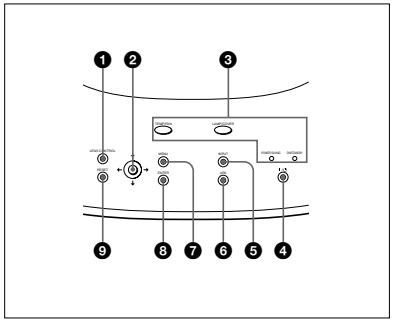
⓬ Adjuster
Use the adjusters to keep the projector level if it is installed on an uneven surface.
Adjust the height so that the projector becomes level. The projector is raised by turning the adjusters clockwise, or it is lowered by turning them counterclockwise.

⓭ Air filter
To remove the air filter, pull it out horizontally with this part.
For details, see "Cleaning the Air Filter" on page 31 (GB).

Note

Clean the air filter every 300 hours to ensure optimal performance.

Control panel



❶ LENS CONTROL key
Enters the focus, zoom or shift adjustment mode. Next adjust them using the arrow keys. Each time you press the key, the mode changes to LENS FOCUS, LENS ZOOM and LENS SHIFT in order. The mode currently selected is displayed on the screen.

LENS FOCUS: Enters the focus adjustment mode. Next adjust the focus using the arrow keys. Press the ↑ or → key to focus on a forward picture, and the ↓ or ← key to focus on a picture further back. You cannot select LENS FOCUS when you attach the optional lens.

LENS ZOOM: Enters the zoom adjustment mode. Next adjust the picture size using the arrow keys. Press the ↑ or → key to enlarge the picture size, and the ↓ or ← key to reduce it. You cannot select LENS ZOOM when you attach the optional lens.

LENS SHIFT: Enters the shift adjustment mode. Next adjust the vertical position of the picture using the arrow keys. Press the ↑ or → key to move the picture upward, and the ↓ or ← key to move it downward.

❷ Arrow keys (↑/↓/←/→)
Used to adjust focus, zoom and shift, or to move the cursor or make various adjustments in the menu.

❸ Indicators

TEMP (Temperature)/FAN
- Lights up when temperature inside the projector becomes unusually high.
- Flashes when the fan is broken.

LAMP/COVER
- Lights up when the lamp has reached the end of its life or becomes a high temperature.
- Flashes when the lamp cover or air filter is not secured firmly.

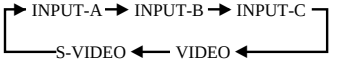
POWER SAVING
Lights up when the projector is in the power saving mode. When POWER SAVING in the SET SETTING menu is set to ON, the projector goes into the power saving mode if no signal is input for 10 minutes. Although the lamp goes out, the cooling fan keeps running. In the power saving mode, any key does not function for the first 40 seconds. The power saving mode is canceled when a signal is input or any key is pressed.

ON/STANDBY
- Lights in red when the AC power cord is plugged into the wall outlet. Once in the standby mode, you can turn on the projector with the I / ⏻ key.
- Lights in green when the power is turned on.
- Flashes in green while the cooling fan runs after turning off the power with the I / ⏻ key. The fan runs for about 120 seconds after turning off the power.
  The ON/STANDBY indicator flashes quickly for the first 40 seconds. During this time, you cannot turn the power back on with the I / ⏻ key.

For details on the LAMP/COVER and the TEMP/FAN indicators, see page 33 (GB).

❹ I / ⏻ (on / standby) key
Turns on the projector when the projector is in the standby mode. The ON/STANDBY indicator lights in green when the power is turned on.
When turning off the power, press the I / ⏻ key twice following the message on the screen, or press and hold the key for about one second.
For details on steps for turning off the power, see "To turn off the power" on page 20 (GB).

❺ INPUT key
Selects the input signal. Each time you press the key, the input signal switches as follows:



❻ APA (Auto Pixel Alignment) key
Adjusts a picture to be projected clearest automatically while a signal from the computer is input. Adjusts the shift (up/down and left/right) at the same time automatically.

Note

Press the APA key when the full image is displayed on the screen. If there are black edges around the image, the APA function will not function properly and the image may extend beyond the screen.

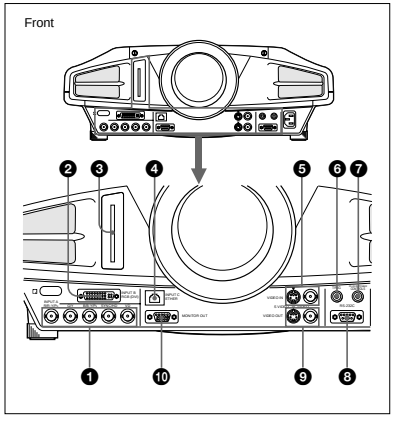
❼ MENU key
Displays the on-screen menu. Press again to clear the menu.

❽ ENTER key
Enters the settings of items in the menu system.

❾ RESET key
Resets the value of an item back to its factory preset value. This key functions when the menu or a setting item is displayed on the screen.

http://getMANUAL.com

Connector panel



❶ INPUT A 5BNC connectors (R/R-Y/PR, G/Y, B/B-Y/PB, SYNC/HD, VD connectors) (BNC type)
Connect to a high-resolution computer or VCR where signals are transmitted long distances; for example, when the projector is installed on the ceiling. According to the connected equipment, computer, component (R-Y/Y/B-Y), HDTV or DTV signal is selected.

❷ INPUT B RGB (DVI) connector
Connect to equipment equipped with the DVI output (digital or analog RGB) using a commercially available DVI cable.

❸ INPUT C PC CARD slot (Type II)
A wireless LAN PC card or PC memory card can be attached according to your requirement.
For details, see "Installing a PC card" on page 16 (GB).

❹ INPUT C ETHER connector (10BASE-T)
Connect to a computer on the same LAN with the LAN cable when you use the networking function of this projector.

❺ VIDEO IN connectors
Connect to external video equipment such as a VCR.
S VIDEO (mini DIN 4-pin): Connects to the S video output (Y/C video output) on video equipment.
VIDEO (BNC type): Connects to the composite video output.

❻ TRIG (trigger output) jack (monaural minijack)
The signal is transmitted from this jack to the connected equipment whether the projector is on or off. (This is not a power source for external equipment.) Approximately 12 V DC signal is output when the projector power is on. The signal is 0 volt level output when the projector power is off.

❼ CONTROL S/PLUG IN POWER (DC 5V output) jack (stereo minijack)
Connects to the control S out jacks of the Sony equipment. Connects to the CONTROL S OUT jack on the supplied Remote Commander when using it as a wired Remote Commander. In this case, you do not need to install the batteries in the Remote Commander, since the power is supplied from this jack.

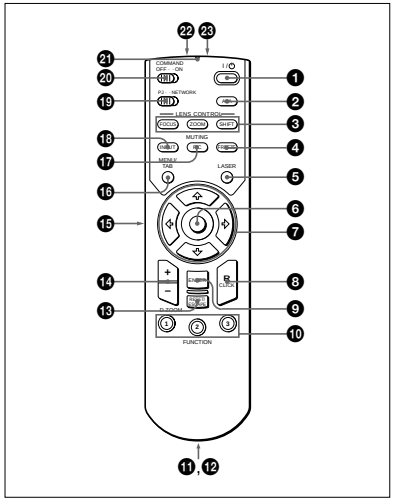
❽ RS-232C connector (D-sub 9-pin, female)
Connects to a computer to operate the projector from the computer.

❾ VIDEO OUT connectors
S VIDEO (mini DIN 4-pin): Used as loop-through output via the S VIDEO IN connector.
VIDEO (BNC type): Used as loop-through output via the VIDEO IN connector.

❿ MONITOR OUT connector (HD D-sub 15-pin, female)
Connects to the monitor input connector on the monitor. Outputs signals from the selected channel in the INPUT A (5BNC) or INPUT B (DVI) connector. This connector does not output any signals from the DVI connector if the input signal is digital.

Remote Commander

The keys which have the same names as those on the control panel function identically.



Notes on laser beam

• Do not look into the laser transmitter.
• Do not aim the laser at people.

❶ I / ⏻ key

❷ APA (Auto Pixel Alignment) key

❸ LENS CONTROL FOCUS/ZOOM/SHIFT keys

❹ FREEZE key
Used to freeze the picture projected. To cancel the freezed picture, press the key again.

❺ LASER key
Emits laser beam from the laser transmitter while you keep this key pressed.

❻ Mouse
This functions as the mouse in the INPUT C window of this projector when the PJ/NETWORK select switch is set to NETWORK.

❼ Arrow keys (↑/↓/←/→)

❽ R (right) CLICK key
When the PJ/NETWORK select switch is set to NETWORK, this key functions as the right button on the mouse in the INPUT C window of this projector.

❾ ENTER key

❿ FUNCTION 1/2/3 keys
Functions when the PJ/NETWORK select switch is set to NETWORK.
When the INPUT C window is displayed on the projector, you can start an application by just pressing a FUNCTION key. To use this function, allocate an application to a FUNCTION key. Allocation to the FUNCTION 3 key is set to the keyboard software display.
For details on how to allocate an application to the FUNCTION keys, refer to the Operating Instructions for Networking.

⓫ Strap holder
Attaches the supplied strap.

⓬ CONTROL S OUT jack (stereo minijack)
Connects to the CONTROL S IN jack on the projector with the connecting cable (not supplied) when using the Remote Commander as a wired one. In this case, you do not need to install the batteries since the power is supplied via the CONTROL S IN jack on the projector.

⓭ RESET/ESCAPE key
When the PJ/NETWORK select switch is set to PJ: Functions as the RESET key.
When the PJ/NETWORK select switch is set to NETWORK: Functions as the ESCAPE key of the keyboard when the INPUT C window is displayed.

⓮ D ZOOM +/– key
Enlarges the image at a desired location on the screen.
+: Pressing the + key once displays the icon. This icon indicates the point you want to enlarge. Use an arrow key (↑/↓/←/→) to move the icon to the point to be enlarged. Press the + key repeatedly until the image is enlarged to your requirements.
–: Pressing the – key reduces an image that has been enlarged with the D ZOOM + key.

⓯ L (left) CLICK key
When the PJ/NETWORK select switch is set to NETWORK, this key functions as the left button on a mouse in the INPUT C window of the projector.

⓰ MENU/TAB key
When the PJ/NETWORK select switch is set to PJ: Functions as the MENU key.
When the PJ/NETWORK select switch is set to NETWORK: Functions as the TAB key of the keyboard when the INPUT C window is displayed.

⓱ PIC MUTING key
Cuts off the picture. Press again to restore the picture.

⓲ INPUT key

⓳ PJ/NETWORK select switch
To use the Remote Commander for network operations, set the switch to NETWORK. Set the switch to PJ to use the Remote Commander for normal operations other than networking.

⓴ COMMAND ON/OFF switch
When this switch is set to OFF, no key on the Remote Commander function. This saves the battery power.

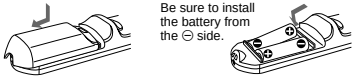
㉑ Transmission indicator
Lights up when you press a key on the Remote Commander.
This indicator does not light up when you use the laser pointer.

㉒ Infrared transmitter

㉓ Laser transmitter

Battery installation

1 Push and slide to open the lid, then install the two size AA (R6) batteries (supplied) with the correct polarity.



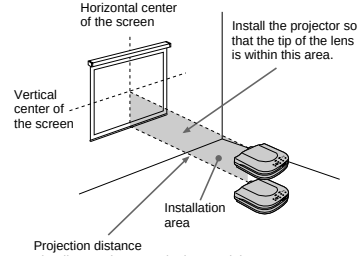
2 Replace the lid.

Notes on batteries
- Make sure that the battery orientation is correct when inserting batteries.
- Do not mix an old battery with a new one, or different types of batteries.
- If you will not use the Remote Commander for a long time, remove the batteries to avoid damage from battery leakage. If batteries have leaked, remove them, wipe the battery compartment dry and replace the batteries with new ones.

Notes on Remote Commander operation
- Make sure that there is nothing to obstruct the infrared beam between the Remote Commander and the remote control detector on the projector.
- The operation range is limited. The shorter the distance between the Remote Commander and the projector is, the wider the angle within which the commander can control the projector.

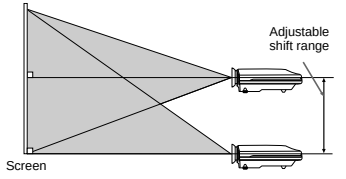
Installing the Projector

This section describes the installation arrangements for installing the projector.


Horizontal center of the screen
Install the projector so that the tip of the lens is within this area.
Vertical center of the screen
Installation area
Projection distance
The distance between the lens and the screen varies depending on the screen size.
Refer to the chart on page 28 (GB).

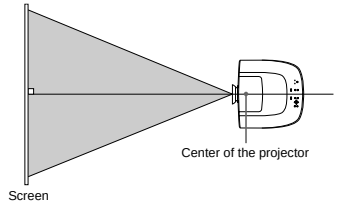
Adjust the vertical and horizontal positioning of the projector.

Vertical positioning (side view)



You can adjust the angle of projection by performing the shift adjustment (page 19 (GB)). Install the projector so that the center of the lens is between the bottom edge of the screen and the center of the screen.

Horizontal positioning (top view)



Adjust the horizontal positioning of the projector so that the center of the lens is aligned with the horizontal center of the screen.

Connecting

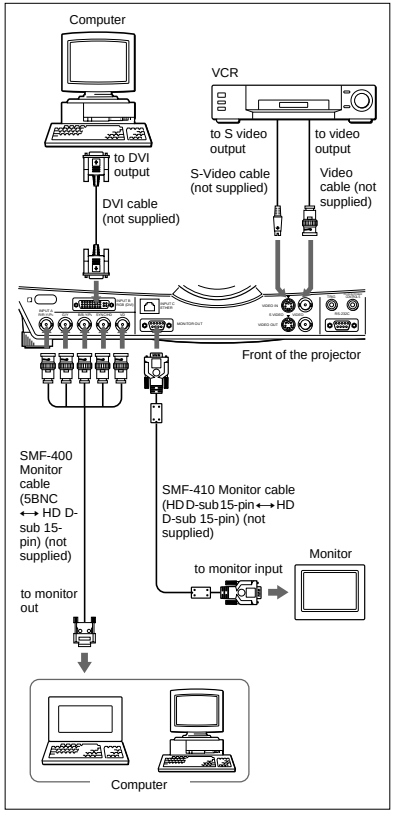
When making connections, be sure to:
- turn off all equipment before making any connections.
- use the proper cables for each connection.
- insert the plugs of the cables properly; plugs that are not fully inserted often generate noise. When pulling out a cable, be sure to pull it out from the plug, not the cable itself.

Connecting with a Computer or a VCR

This section describes how to connect the projector to a computer or video equipment.
Also refer to the instruction manual of equipment to be connected.

Notes
- This unit accepts the VGA, SVGA, XGA, SXGA or UXGA (60 Hz) signals. However, we recommend you to set the output signal of your computer to the XGA.
- If you set your computer, such as a notebook type IBM PC/AT [1] compatible, to output the signal to both the display of your computer and the external monitor, the picture of the external monitor may not appear properly. In such cases, set the output mode of your computer to output the signal to only the external monitor.
  For details, refer to the operating instructions supplied with your computer.
- This projector complies with DDC1 and DDC2B (Plug & Play). (DDC1 and DDC2B are the Display Data Channel (DDC™) [2] standard in the VESA standard.) When connecting a DDC1 host system, the projector synchronizes with V.CLK that follows the VESA standard and outputs EDID (Extended Display Identification Data) to the data line. When connecting a DDC2B host system, the projector automatically switches to the appropriate communication mode.
  The INPUT B RGB (DVI) connector complies with the VESA DDC2B. If your computer or graphics board is compatible with DDC, turn on the power of the equipment as follows:

1 According to the input signal, set INPUT-B TERM. in the SET SETTING menu to PC ANALOG or PC DIGITAL.
2 Connect the projector to the computer with the DVI cable.
3 Turn on the power of the projector.
4 Boot up the computer.

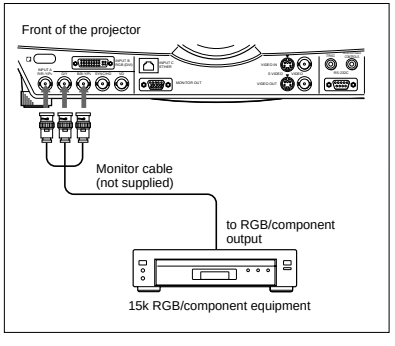


Notes
- Set INPUT-A in the SET SETTING menu to COMPUTER when you connect the computer to the INPUT A connector.
  For details, see page 26 (GB).
- When connecting a Macintosh [3] computer to the INPUT A connector, use the ADP-20 Signal adapter (not supplied).
- Select PC DIGITAL or PC ANALOG using INPUT-B TERM. in the SET SETTING menu depending on the signal input.
  For details, see page 26 (GB).

1) IBM and PC/AT are a trademark and a registered trademark of International Business Machines Corporation, U.S.A.
2) DDC™ is a registered trademark of the Video Electronics Standard Association.
3) Macintosh is a registered trademark of Apple Computer Inc.

Connecting with a 15k RGB/ Component Equipment

This section describes how to connect the projector with a 15k RGB/component equipment.
Also refer to the instruction manuals of the equipment to be connected.



Notes

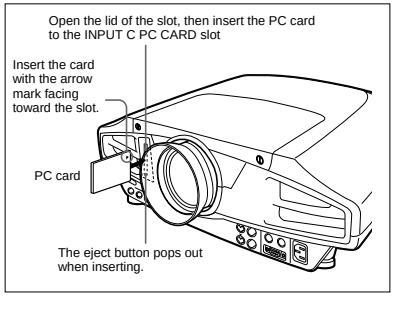
- Set the aspect ratio using ASPECT in the INPUT SETTING menu according to the input signal.
  For details, see page 24 (GB).
- Select the input signal using INPUT-A in the SET SETTING menu.
  For details, see page 26 (GB).
- Use the composite sync signal when you input the external sync signal from 15k RGB/component equipment.
  Connecting to a HDTV 1035/60i
  Since the screen ratio of a high definition image is 16:9 and 576 lines are displayed in the vertical direction, the image displayed is not a high-definition image.

Connecting to LAN

This projector is compatible with networking. Installing a wireless LAN PC card or using the ETHER connector enables you to connect the projector to a wireless or wired LAN. You can also install a PC memory card.
This section describes how to connect to LAN and how to install a PC card.
Whenever you connect the projector to LAN, set INPUT C FUNC. in the INSTALL SETTING menu to ON.
For details, see page 27 (GB).

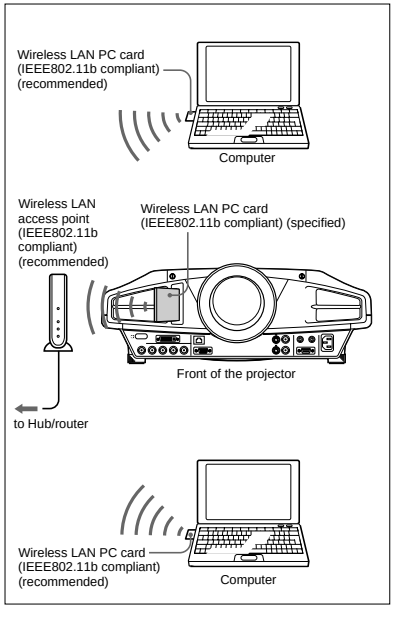
Installing a PC card

When you use a wireless LAN PC card or memory card, insert the card into the INPUT C PC CARD slot.


Open the lid of the slot, then insert the PC card
to the INPUT C PC CARD slot
Insert the card
with the arrow
mark facing
toward the slot.
PC card
The eject button pops out
when inserting.

To remove the PC card from the slot, press the eject button.

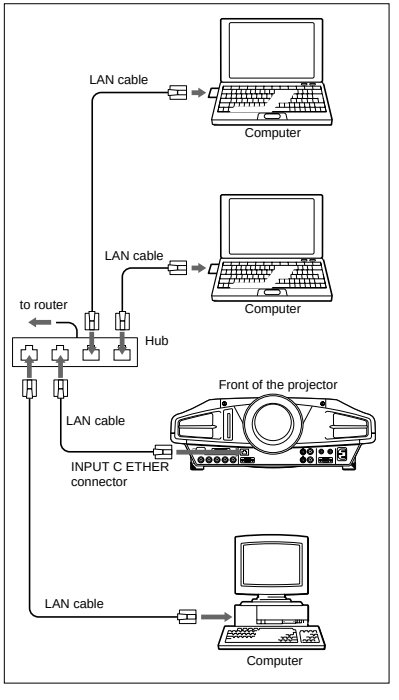
Connection using a wireless LAN PC card



Notes

- For details on the recommended PC card or wireless LAN access point, see the attached "Recommended PC card/wireless LAN access point."
- When you use LAN, you must set the IP address. For details of setting IP address, etc., see the supplied "Operating Instructions for Networking."

Connection using the INPUT C ETHER connector



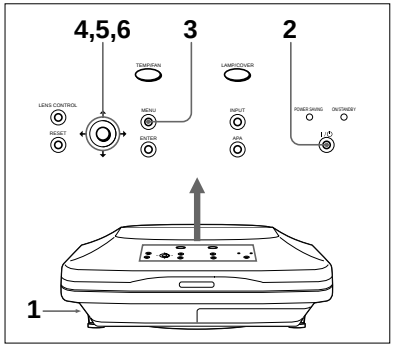
Installing a PC memory card

If you store the file created with Microsoft PowerPoint[1)] in a memory card and insert it into the INPUT C PC CARD slot, you can run a presentation without connecting a computer.
For attaching and removing the PC memory card, see "Installing a PC card" on page 16 (GB).
For details on the recommended PC card, see the attached "Recommended PC card/wireless LAN access point."

1) PowerPoint is a registered trademark of Microsoft Corporation in the United States and/or other countries.

Selecting the Menu Language

You can select the language for displaying in the menu and other on screen displays from 7 languages. The factory setting is ENGLISH.



1 Plug the AC power cord into the wall outlet.

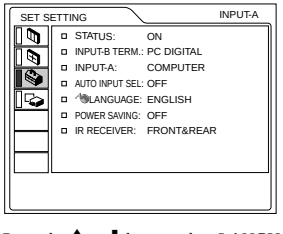
2 Press the I / ⏻ key to turn on the power.

3 Press the MENU key.

The menu display appears.

4 Press the ↑ or ↓ key to select the SET SETTING menu, then press the → or ENTER key.

The SET SETTING menu appears.



5 Press the ↑ or ↓ key to select LANGUAGE, then press the → or ENTER key.

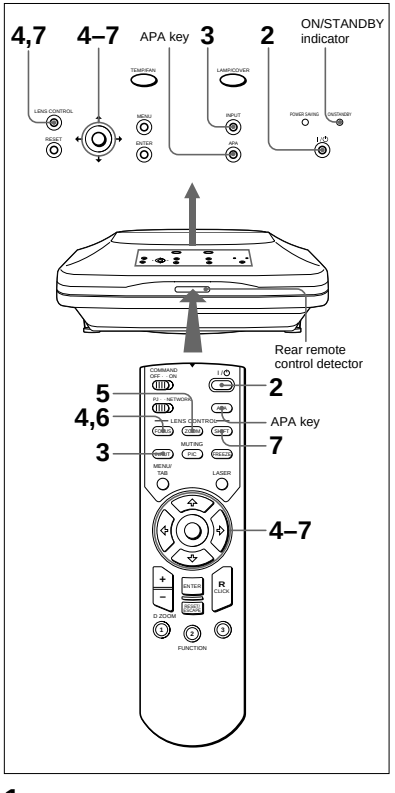
6 Press the ↑ or ↓ key to select a language, then press the ← or ENTER key.

The menu changes to the selected language .

To clear the menu display

Press the MENU key.
The menu display disappears automatically if no key is pressed for one minute.

Projecting



1 After all equipment is connected completely, plug the AC power cord into the wall outlet.

The ON/STANDBY indicator lights in red and the projector goes into the standby mode.

2 Press the I / ⏻ key to turn on the projector.

The ON/STANDBY indicator lights in green.

3 Turn on equipment connected to the projector. Press the INPUT key to select the input source.

INPUT-A: Selects video signal input from the INPUT A connector.
INPUT-B: Selects video signal input from the INPUT B connector.
INPUT-C: Selects to display the Windows CE window.
VIDEO: Selects video signal input from the VIDEO (VIDEO IN) jack.
S-VIDEO: Selects video signal input from the S VIDEO (VIDEO IN) jack.

4 Press the FOCUS key then the ↑ or ↓ key on the Remote Commander to adjust the focus.

"LENS FOCUS" appears on the screen during adjustment.

5 Press the ZOOM key then the ↑ or ↓ key on the Remote Commander to adjust the picture size.

"LENS ZOOM" appears on the screen during adjustment.

6 Press the FOCUS key and arrow keys on the Remote Commander to adjust the focus again.

7 Press the SHIFT key then the ↑ or ↓ key on the Remote Commander to adjust the vertical position of the picture.

"LENS SHIFT" appears on the screen during adjustment.

Note on focus and zoom adjustments

If the optional VPLL-ZM101, VPLL-ZM31 or VPLL-FM21 lens is installed, perform the focus and zoom adjustments manually.

To use the keys on the control panel for focus, zoom and shift adjustments

Press the LENS CONTROL key repeatedly to display the adjustment mode you want. Each press changes the mode, "LENS FOCUS," "LENS ZOOM" and "LENS SHIFT" in this order. Then press the arrow keys to adjust.

Note

Looking into the lens when projecting may cause injury to your eyes.

Cut off the picture

Press the PIC MUTING key on the Remote Commander. To restore the picture, press the PIC MUTING key again.

To get the clearest picture

You can get the suitable picture when a signal from the computer is input. Press the APA key.
The picture is automatically adjusted to be projected clearest.

Notes

- Adjust the signal when the still picture is displayed on the screen.
- Press the APA key when the full image is displayed on the screen. If there are black edges around the image, the APA function will not function properly and the image may extend beyond the screen.
- If you switch the input signal or re-connect a computer, press the APA key again to get the suitable picture.
- "ADJUSTING" appears on the screen. To restore the original screen, press the APA key again during the adjustment.
- "Complete!" appears on the screen when the picture is adjusted properly. The picture may not be adjusted properly depending on the kinds of input signals.
- Adjust the items in the INPUT SETTING menu when you adjust the picture manually.
For details, see page 23 (GB).

To correct the trapezoid

When the projecting image is a trapezoid, perform the shift adjustment with the SHIFT key.

If the image is still a trapezoid, correct it in DIGIT KEYSTONE in the INSTALL SETTING menu.

When the base edge is longer than the upper edge as shown in the figure below:

Set the value to negative.

When the upper edge is longer than the base edge as shown in the figure below:

Set the value to positive.

For details on "DIGIT KEYSTONE," see page 27 (GB).

To turn off the power

1 Press the I / ⏻ key.

"Power OFF?" appears on the screen.

Note

The message will disappear if you press any key except the I / ⏻ key, or if you do not press any key for five seconds.

2 Press the I / ⏻ key again.

The ON/STANDBY indicator flashes in green and the fan continues to run for about 120 seconds to reduce the internal heat. Also, the ON/STANDBY indicator flashes quickly for the first 40 seconds. During this time, you will not be able to turn the power back on with the I / ⏻ key.

3 Unplug the AC power cord from the wall outlet after the fan stops running and the ON/STANDBY indicator lights in red.

When you cannot confirm the on-screen message

When you cannot confirm the on-screen message in a certain condition, you can turn off the power by holding the I / ⏻ key for about one second.

Note

Do not unplug the AC power cord while the fan is still running; otherwise, the fan will stop although the internal heat is still high, leading to breakdown of the projector.

About the air filter cleaning

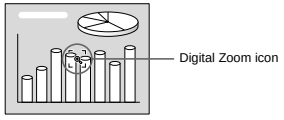
Clean the air filter every 300 hours to ensure optimal performance.

To enlarge the image (Digital Zoom function)

You can enlage the point on the image you select. This function works only when a signal from a computer (except for UXGA) is input.

1 Press the D ZOOM + key on the Remote Commander.

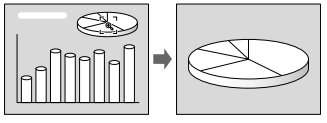
The Digital Zoom icon appears in the center of the image.



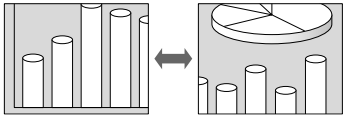
2 Move the icon to the point on the image you want to enlarge. Use the arrow keys (↑/↓/←/→) to move the icon.

3 Press the D ZOOM + key again.

The image where the icon is located is enlarged. The enlargement ratio is displayed on the screen for a few seconds.
By pressing the + key repeatedly, the image size increases. (ratio of enlargement: max. 4 times)



Use the arrow keys (↑/↓/←/→) to scroll the enlarged image.



To return the image back to its original size

Press the D ZOOM – key. Just pressing the RESET key returns the image back to its original size immediately.

To freeze the image projected (Freeze function)

Press the FREEZE key. "FREEZE" appears when the key is pressed. This function works only when a signal from a computer (except for UXGA) is input. To restore the original screen, press the FREEZE key again.

To use the Laser Pointer function

Press the LASER key on the Remote Commander. The laser pointer appears. The pointer is helpful in indicating a particular point on the screen.

Using the MENU

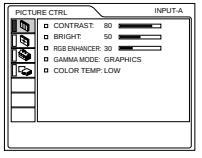
The projector is equipped with an on-screen menu for making various adjustments and settings.

Note

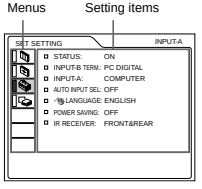
Before operation, confirm that the PJ/NETWORK select switch on the Remote Commander is set to PJ. If it is set to NETWORK, the menu display will not appear even when you press the MENU key on the Remote Commander.

To select the language used in the menu, see page 26 (GB).

1 Press the MENU key.
The menu display appears.
The menu presently selected is shown as a yellow button.



2 Use the ↑ or ↓ key to select a menu, then press the → or ENTER key.
The selected menu appears.



3 Select an item.
Use the ↑ or ↓ key to select the item, then press the → or ENTER key.

4 Make setting or adjustment on an item.
For details on setting individual items, see the relevant menu pages.

To clear the menu

Press the MENU key.
The menu display disappears automatically if no key is pressed for one minute.

To reset items that have been adjusted

Press the RESET key.
"Complete!" appears on the screen and the settings appearing on the screen will be reset to their factory preset values.
Items that can be reset are:
- "CONTRAST", "BRIGHT", "COLOR", "HUE", "SHARP" and "RGB ENHANCER" in the PICTURE CTRL menu.
- "DOT PHASE", "SIZE H" and "SHIFT" in the INPUT SETTING menu.
- "DIGIT KEYSTONE" in the INSTALL SETTING menu.

About the memory of the settings

The settings are automatically stored in the projector memory.

When no signal is input

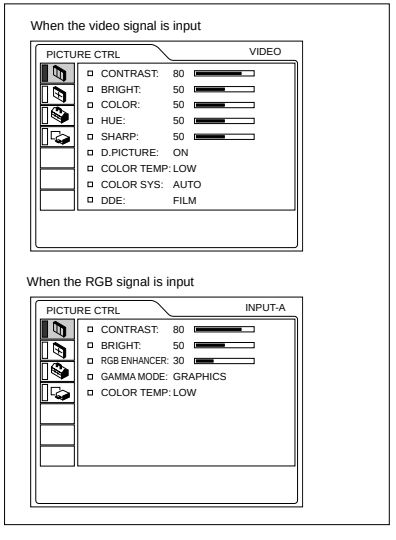
When there is no input signal, "NO INPUT–Cannot adjust this item." appears on the screen, and each item cannot be adjusted.

About the menu display

You can set the display position of the menu, intensity of the background picture and tone of the menu items as you like.
For details, see page 27 (GB).

The PICTURE CTRL Menu

The PICTURE CTRL (control) menu is used for adjusting the picture.
Unadjustable items depending on the input signal are not displayed in the menu.



Operation

1. Select an item
Use the ↑ or ↓ key to select the item, then press the → or ENTER key.

2. Adjust an item
- When changing the adjustment level:
  To increase the number, press the ↑ or → key.
  To decrease the number, press the ↓ or ← key.
  Press the ENTER key to restore the original screen.
- When changing the setting:
  Press the ↑ or ↓ key to change the setting.
  Press the ENTER or ← key to restore the original screen.

CONTRAST

Adjusts the picture contrast.
The higher the setting, the greater the contrast.
The lower the setting, the lower the contrast.

BRIGHT

Adjusts the picture brightness.
The higher the setting, the brighter the picture.
The lower the setting, the darker the picture.

COLOR

Adjusts color intensity.
The higher the setting, the greater the intensity.
The lower the setting, the lower the intensity.

HUE

Adjusts color tones.
The higher the setting, the picture becomes greenish.
The lower the setting, the picture becomes purplish.

SHARP

Adjusts the picture sharpness.
The higher the setting, the sharper the picture.
The lower the setting, the softer the picture.

RGB ENHANCER

Adjusts the picture sharpness when the RGB signals are input.
The higher the setting, the sharper the picture.
The lower the setting, the softer the picture.

D. (Dynamic) PICTURE

Emphasizes the black color.
ON: Emphasizes the black color to produce a bolder "dynamic" picture.
OFF: Reproduces the dark portions of the picture accurately, in accordance with the source signal.

GAMMA MODE

Selects a gamma correction curve.
GRAPHICS: Improves the reproduction of half tones. Photos can be reproduced in natural tones.
TEXT: Contrasts black and white. Suitable for images that contain lots of text.

COLOR TEMP

Adjusts the color temperature.
HIGH: Makes the white color bluish.
LOW: Makes the white color reddish.

COLOR SYS (System)

Selects the color system of the input signal.
AUTO: Automatically selects one of the following signals: NTSC3.58, PAL, SECAM, NTSC4.43.
PAL-M/N: Automatically selects one of the following signals: PAL-M/PAL-N, NTSC3.58.
Normally, set to AUTO.
If the picture is distorted or colorless, select the color system according to the input signal.

DDE (Digital Detail Enhancer)

Selects the reproduction format of the input video signals according to the video sources.
FILM: Normally, set to this position. Reproduces the 2-3 Pull-Down film sources with smooth picture movement.
When the video signal with a format other than the 2-3 Pull-Down is input, PROGRESSIVE is automatically selected.
PROGRESSIVE: Converts an interlace format video signal to a progressive format.
OFF: Plays back the video signal in an interlace format without converting.

Input signals and adjustable/setting items

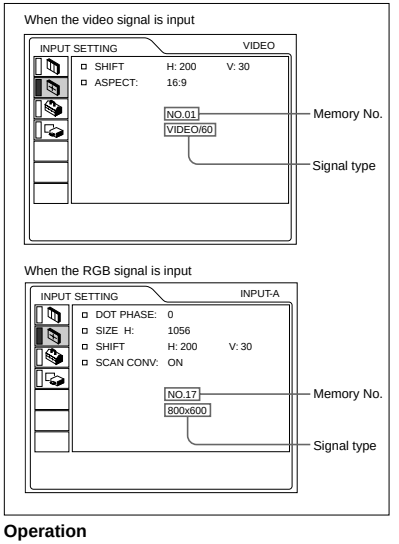
Item	Input signal			
	Video or S video (Y/C)	Component	Video GBR	RGB[1]
CONTRAST	●	●	●	●
BRIGHT	●	●	●	●
COLOR	● (except for B & W)	●	●	–
HUE	● (NTSC3.58/ 4.43 only)	●	●	–
SHARP	●	●	●	–
RGB ENHANCER	–	–	–	●
D. PICTURE	●	● (480/60i, 575/50i)	–	–
GAMMA MODE	–	–	–	●
COLOR TEMP	●	●	●	●
COLOR SYS	●	–	–	–
DDE	●	● (480/60i, 575/50i)	● (480/60i, 575/50i)	–

● : Adjustable/can be set
– : Not adjustable/can not be set

1) The RGB signals of a computer

The INPUT SETTING Menu

The INPUT SETTING menu is used to adjust the input signal.
Unadjustable items depending on the input signal are not displayed in the menu.



Operation

1. Select an item
Use the ↑ or ↓ key to select the item, then press the → or ENTER key.

2. Adjust an item
- When changing the adjustment level:
  To increase the number, press the ↑ or → key.
  To decrease the number, press the ↓ or ← key.
  Press the ENTER key to restore the original screen.
- When changing the setting:
  Press the ↑ or ↓ key to change the setting.
  Press the ENTER or ← key to restore the original screen.

DOT PHASE

Adjusts the dot phase of the LCD panel and the signal input from the INPUT A/B (analog signal only) connector. Adjust the picture further for finer picture after the picture is adjusted with pressing the APA key. Adjust the picture to where it looks clearest.

SIZE H

Adjusts the horizontal size of picture input from the INPUT A/B (analog signal only) connector.
The higher the setting, the larger the horizontal size of the picture.
The lower the setting, the smaller the horizontal size of the picture. Adjust the setting according to the dots of the input signal.
For details on the suitable value for the preset signals, see page 25 (GB).

SHIFT

Adjusts the position of the picture input from the INPUT A/B (analog signal only) connectors or VIDEO IN jacks.
H adjusts the horizontal position of the picture.
V adjusts the vertical position of the picture.
As the setting for H increases, the picture moves to the right, and as the setting decreases, the picture moves to the left.
As the setting for V increases, the picture moves up, and as the setting decreases, the picture moves down.
Use the ← or → key to adjust the horizontal position and the ↑ or ↓ key for the vertical position.

ASPECT

Sets the aspect ratio of the picture.
When inputting 16:9 (squeezed) signal from equipment such as a DVD player, set to 16:9.
4:3 : When the picture with ratio 4:3 is input.
16:9 : When the picture with ratio 16:9 (squeezed) is input.

SCAN CONV (Scan converter)

Converts the signal to display the picture according to the screen size.
ON: Displays the picture according to the screen size. The picture will lose some clarity.
OFF: Displays the picture while matching one pixel of input picture element to that of the LCD. The picture will be clear but the picture size will be smaller.

Note

This item is displayed only when the computer signal (except for the XGA, SXGA and UXGA signals) is input.

Input signals and adjustable/setting items

Item	Input signal			
	Video or S video (Y/C)	Component	Video GBR	RGB[1]
DOT PHASE	–	● (HDTV only)	● (HDTV only)	●
SIZE H	–	● (HDTV only)	● (HDTV only)	●
SHIFT	●	●	●	●
ASPECT	●	● (480/60i, 575/50i)	● (480/60i, 575/50i)	●
SCAN CONV	–	–	–	● (lower than SVGA only)

● : Adjustable/can be set
– : Not adjustable/can not be set

About the preset memory No.

This projector has 45 kinds of preset data for input signals (the preset memory). The memory number of the current input signal and the signal type are displayed when the preset signal is input. This projector automatically detects the signal type. When the signal is registered to the preset memory, a suitable picture is displayed on the screen according to the signal type. You can adjust the picture through the INPUT SETTING menu.
This projector also has 20 kinds of user memories for each INPUT-A/B (analog signal only). When an unpreset signal is input for the first time, memory number is displayed as 0. If the input signal is adjusted in the INPUT SETTING menu, the setting via INPUT-A/B (analog signal only) is stored. When more than 20 user memories are registered for each INPUT-A/B (analog signal only), the newest memory is automatically stored over the oldest one.

1) The RGB signals of a computer

Preset signals

Memory No.	Preset signal		fH (kHz)	fV (Hz)	Sync	SIZE H
1	Video 60 Hz		15.734	59.940	H-neg V-neg	
2	Video 50 Hz		15.625	50.000	H-neg V-neg	
3	480/60i		15.734	59.940	S on G/Y	
4	575/50i		15.625	50.000	or	
5	1080/60i		33.750	60.000	Composite sync	
6	640 × 350	VGA mode 1	31.469	70.086	H-pos V-neg	800
7		VGA VESA[1] 85 Hz	37.861	85.080	H-pos V-neg	832
8	640 × 400	PC-9801[2] Normal	24.823	56.416	H-neg V-neg	848
9		VGA mode 2	31.469	70.086	H-neg V-pos	800
10		VGA VESA 85 Hz	37.861	85.080	H-neg V-pos	832
11	640 × 480	VGA mode 3	31.469	59.940	H-neg V-neg	800
12		Macintosh 13"	35.000	66.667	H-neg V-neg	864
13		VGA VESA 72 Hz	37.861	72.809	H-neg V-neg	832
14		VGA VESA 75 Hz	37.500	75.000	H-neg V-neg	840
15		VGA VESA 85 Hz	43.269	85.008	H-neg V-neg	832
16	800 × 600	SVGA VESA 56 Hz	35.156	56.250	H-pos V-pos	1024
17		SVGA VESA 60 Hz	37.879	60.317	H-pos V-pos	1056
18		SVGA VESA 72 Hz	48.077	72.188	H-pos V-pos	1040
19		SVGA VESA 75 Hz	46.875	75.000	H-pos V-pos	1056
20		SVGA VESA 85 Hz	53.674	85.061	H-pos V-pos	1048
21	832 × 624	Macintosh 16"	49.724	74.550	H-neg V-neg	1152
22	1024 × 768	XGA VESA 43 Hz	35.524	43.479	H-pos V-pos	1264
23		XGA VESA 60 Hz	48.363	60.004	H-neg V-neg	1344
24		XGA VESA 70 Hz	56.476	69.955	H-neg V-neg	1328
25		XGA VESA 75 Hz	60.023	75.029	H-pos V-pos	1312
26		XGA VESA 85 Hz	68.677	84.997	H-pos V-pos	1376
27	1152 × 864	SXGA VESA 70 Hz	63.995	70.016	H-pos V-pos	1472
28		SXGA VESA 75 Hz	67.500	75.000	H-pos V-pos	1600
29		SXGA VESA 85 Hz	77.487	85.057	H-pos V-pos	1568
30	1152 × 900	Sunmicro LO	61.795	65.960	H-neg V-neg	1504
31		Sunmicro HI	71.713	76.047	Composite sync	1472
32	1280 × 960	SXGA VESA 60 Hz	60.000	60.000	H-pos V-pos	1800
33		SXGA VESA 75 Hz	75.000	75.000	H-pos V-pos	1728
34	1280 × 1024	SXGA VESA 43 Hz	46.433	43.436	H-pos V-pos	1696
35		SGI-5	53.316	50.062	S on G	1680
36		SXGA VESA 60 Hz	63.974	60.013	H-pos V-pos	1696
37		SXGA VESA 75 Hz	79.976	75.025	H-pos V-pos	1688
38		SXGA VESA 85 Hz	91.146	85.024	H-pos V-pos	1728
39	1600 × 1200	UXGA VESA 60 Hz	75.000	60.000	H-pos V-pos	2160
43	P Component 480/60p	480/60p (Double frequency NTSC)	31.470	60.000	S on G	
44	575/50p	575/50p (Double frequency PAL)	31.250	50.000	S on G	
45	1080/50i	1080/50i	28.130	50.000		
46	1080& 1152/50i	1080/50i-2	31.250	50.000		
47	720/60p	720/60p	45.000	60.000		
48	720/50p	720/50p	37.500	50.000		

1) VESA is a registered trademark of Video Electronics Standard Association.
2) PC-98 is a registered trademark of NEC Corporation.

Since the data is recalled from the preset memory about the following signals, you can use these preset data by adjusting SIZE H. Make fine adjustment by adjusting SHIFT.

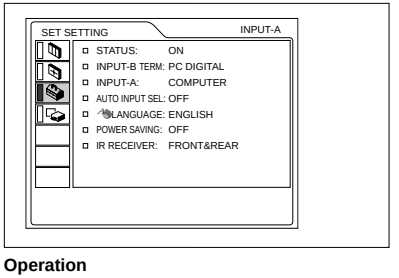
Signal	Memory No.	SIZE H
Super Mac-2	23	1312
SGI-1	23	1320
Macintosh 19"	25	1328
Macintosh 21"	27	1456
Sony News	36	1708
PC-9821 1280 × 1024	36	1600
WS Sunmicro	37	1664

Notes

- When the aspect ratio of an input signal is other than 4:3, a part of the screen is displayed in black.
- The UXGA signal can be projected only when you set the frequency of a computer to 60 Hz.

The SET SETTING Menu

The SET SETTING menu is used for changing the settings of the projector.



Operation

1. Select an item
Use the ↑ or ↓ key to select the item, then press the → or ENTER key.

2. Change the setting
Press the ↑ or ↓ key to change the setting.
To restore the original screen, press the ENTER or ← key.

STATUS (on-screen display)

Sets up the on-screen display.
ON: Shows all of the on-screen displays.
OFF: Turns off the on-screen displays except for the menus, a message when turning off the power, and warning messages.
For details on the warning messages, see page 33 (GB).

INPUT-B TERM.

Set to PC ANALOG when the RGB signal input to the INPUT B RGB (DVI) connector is analog, and to PC DIGITAL when the input RGB signal is digital.

INPUT-A

Selects the computer, component or video GBR (15k RGB, DTV, HDTV) signal input from the INPUT A connector.

Note
If the setting is not correct, "Please check INPUT-A setting." appears on the screen and the color of the picture becomes strange or the picture is not displayed.

AUTO INPUT SEL

When set to ON, the projector detects input signals in the following order: INPUT-A/INPUT-B/INPUT-C/VIDEO/S-VIDEO. It indicates the input channel when the power is turned on or the INPUT key is pressed.

LANGUAGE

Selects the language used in the menu and on-screen displays.
Available languages are: English, French, German, Italian, Spanish, Japanese and Chinese.

POWER SAVING

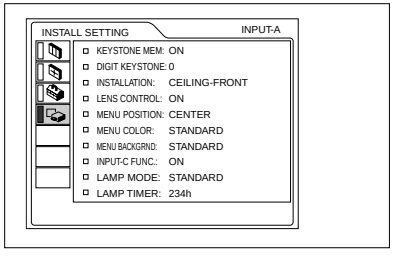
When set to ON, the projector goes into the power saving mode if no signal is input for 10 minutes.

IR RECEIVER

Selects the remote control detectors on the front and rear of the projector.
FRONT & REAR: Activates both the front and rear detectors.
FRONT: Activates the front detector only.
REAR: Activates the rear detector only.

The INSTALL SETTING Menu

The INSTALL SETTING menu is used for changing the settings of the projector.



Operation

1. Select an item
Use the ↑ or ↓ key to select the item, then press the → or ENTER key.

2. Adjust an item
- When changing the adjustment level:
  To increase the number, press the ↑ or → key.
  To decrease the number, press the ↓ or ← key.
  Press the ENTER key to restore the original screen.
- When changing the setting:
  Press the ↑ or ↓ key to change the setting.
  Press the ENTER or ← key to restore the original screen.

KEYSTONE MEM

ON: DIGIT KEYSTONE setting is stored.
The data is retrieved when the projector power is turned on. The setting will remain the same every time.
OFF: DIGIT KEYSTONE is reset to 0 when the power is turned on next time.

DIGIT KEYSTONE

Corrects the trapezoid caused by the projection angle. If the base edge is longer, set a negative value; if the upper edge is longer, set a positive value to square the image.

INSTALLATION

Sets to reverse the picture horizontally or vertically.

FLOOR-FRONT: The picture is not reversed.
CEILING-FRONT: The picture is reversed horizontally and vertically.
FLOOR-REAR: The picture is reversed horizontally.
CEILING-REAR: The picture is reversed vertically.

Note
In case of using a mirror, be careful of installation since the picture may be reversed.

LENS CONTROL

When set to OFF, the LENS CONTROL FOCUS, ZOOM and SHIFT keys do not function.

MENU POSITION

Selects the display position of the menu from TOP LEFT, BOTTOM LEFT, CENTER, TOP RIGHT and BOTTOM RIGHT.

MENU COLOR

Selects the tone of the menu display from STANDARD, WARM, COOL, GREEN or GRAY.

MENU BACKGRND

Selects the intensity of the background picture of the menu display from DARK, STANDARD or LIGHT.

INPUT-C FUNC.

Set to ON when using the Windows CE function.

Note
Be sure to exit every application software that is open before you switch the setting ON to OFF. Otherwise, system down may occur and you may not restart the projector.

LAMP MODE

Sets the lamp brightness in the projection.
STANDARD: Illuminates with normal brightness.
LOW: Reduces fan noise and power consumption.

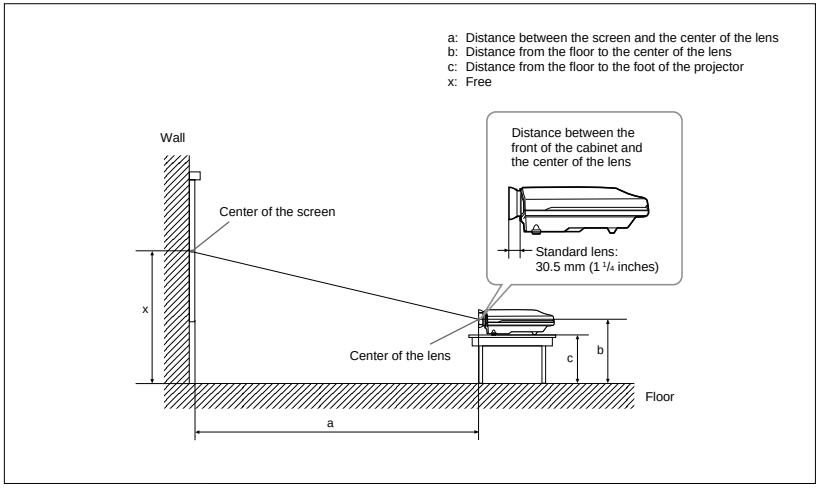
Compared with the STANDARD setting, the brightness of an image projecting under the LOW setting will be low.
If the LAMP MODE is set to LOW, the next time the power is turned on, the lamp will use the STANDARD setting for the first 3 minutes, and then go to LOW.

LAMP TIMER

Indicates how long the lamp has been turned on.

Note
This only displays the time. You cannot alter the display.

Installation Example


a: Distance between the screen and the center of the lens
b: Distance from the floor to the center of the lens
c: Distance from the floor to the foot of the projector
x: Free
Wall
Distance between the front of the cabinet and the center of the lens
Center of the screen
Standard lens: 30.5 mm (1 1/4 inches)
x
Center of the lens
c
b
Floor
a

Unit: mm (inches)

Screen size (inches)		40	60	80	100	120	150	180	200	250	300
a	Minimum	1490 (58 3/4)	2280 (89 7/8)	3060 (120 1/2)	3850 (151 5/8)	4630 (182 3/8)	5810 (228 7/8)	6980 (274 7/8)	7770 (306)	9730 (383 1/8)	11690 (460 3/8)
	Maximum	1820 (71 3/4)	2780 (109 1/2)	3740 (147 3/8)	4700 (185 1/8)	5660 (222 7/8)	7100 (279 5/8)	8540 (336 3/8)	9500 (374 1/8)	11900 (468 5/8)	14300 (563 1/8)
b	Minimum	x–305 (x–12 1/8)	x–457 (x–18)	x–610 (x–24 1/8)	x–762 (x–30)	x–914 (x–36)	x–1143 (x–45)	x–1372 (x–54 1/8)	x–1524 (x–60)	x–1905 (x–75 1/8)	x–2286 (x–90 1/8)
	Maximum	x									
c	Minimum	x–415 (x–16 3/8)	x–567 (x–22 3/8)	x–720 (x–28 3/8)	x–872 (x–34 3/8)	x–1024 (x–40 3/8)	x–1253 (x–49 3/8)	x–1482 (x–58 3/8)	x–1634 (x–64 3/8)	x–2015 (x–79 11/32)	x–2396 (x–94 3/8)
	Maximum	x–100 (x–4)									

To calculate the installation measurement (unit: mm)

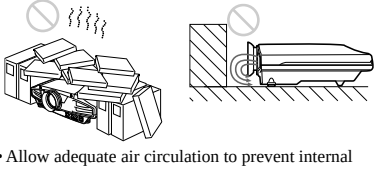
SS: screen size diagonal (inches)
a (minimum) = {(SS × 50.127/1.3102) – 73.9} × 1.025
a (maximum) = {(SS × 64.519/1.3102) – 107.9} × 0.975
b (minimum) = x – (SS/1.3102 × 9.984)
c (minimum) = x – (SS/1.3102 × 9.984 + 110)

Notes for Installation

Unsuitable Installation

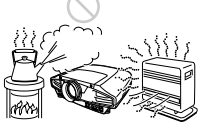
Do not install the projector in the following situations. These installations may cause malfunction or damage to the projector.

Poorly ventilated



- Allow adequate air circulation to prevent internal heat build-up. Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation holes. When the internal heat builds up due to the block-up, the temperature sensor will function with the message “High temp.! Lamp off in 1 min.” The power will be turned off automatically after one minute.
- Leave space of more than 50 cm (19 3/4 inches) around the unit.
- Be careful that the ventilation holes may inhale tininess such as a piece of paper.
- If you put something in front of the front ventilation holes, the exhaust may be inhaled into the projector through the ventilation holes at the bottom, causing the internal temperature to rise, which activates the protection circuit. Install the projector so that the exhaust is not blocked.

Highly heated and humid



- Avoid installing the unit in a location where the temperature or humidity is very high, or temperature is very low.
- To avoid moisture condensation, do not install the unit in a location where the temperature may rise rapidly.

Very dusty

Avoid installing the unit in a location where there is a lot of dust; otherwise, the air filter will be obstructed. The dust blocking the air through the filter may cause raising the internal heat of the projector. Clean it up periodically.

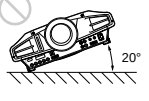
Unsuitable Conditions for Use

Do not do any of the following.

Blocking the ventilation holes

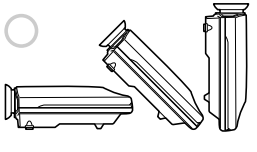
Avoid using something to cover over the ventilation holes; otherwise, the internal heat may build up.

Tilting right/left



Avoid using as the unit tilts more than 20 degrees. Do not install the unit other than on the floor or ceiling. These installations may cause malfunction.

The front to back tilt angle of this projector is not limited.



Maintenance

Notes

- **If the lamp breaks, consult with qualified Sony personnel.**
- Pull out the lamp unit by holding the handle. If you touch the lamp unit, you may be burned or injured.
- When removing the lamp unit, make sure it remains horizontal, then pull straight up. Do not tilt the lamp unit. If you pull out the lamp unit while tilted and if the lamp breaks, the pieces may scatter, causing injury.

Replacing the Lamp

When the lamp has burnt out or dims, or "Please replace the lamp" appears on the screen, replace the lamp with a new one. The message appears after 1000 hours for the STANDARD setting, or about 1500 hours for the LOW setting in the LAMP MODE. Use LMP-F250 Projector Lamp as the replacement lamp.
The lamp life varies depending on conditions of use.

When replacing the lamp after using the projector

Turn off the projector, then unplug the power cord. Wait for at least an hour for the lamp to cool.

Note

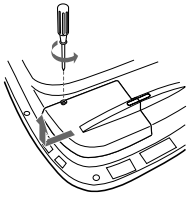
The lamp becomes a high temperature after turning off the projector with the I / ⏻ key. If you touch the lamp, you may scald your finger. When you replace the lamp, wait for at least an hour for the lamp to cool.

1 Place a protective sheet (cloth) beneath the projector and put the projector face down.

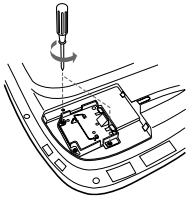
Note

When replacing the lamp, be sure it is on a flat and stable surface.

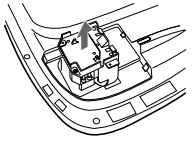
2 Slide to open the lamp cover by loosening one screw with the Phillips screwdriver.



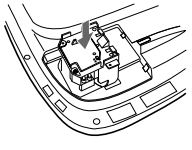
3 Loosen two screws on the lamp unit with the Phillips screwdriver.



4 While holding the handle and keeping the lamp unit horizontal, pull straight up.



5 Insert the new lamp all the way in until it is securely in place. Tighten the two screws. Fold down the handle.



Notes

- Be careful not to touch the glass surface of the lamp.
- The power will not turn on if the lamp is not secured properly.

6 Close the lamp cover and tighten the screw.

7 Turn the projector back over.

8 Connect the power cord and turn the projector to the standby mode.

9 Press the following keys on the control panel in the following order for less than in five seconds each: RESET, ←, →, ENTER.

Notes

- Be sure to use the LMP-F250 Projector Lamp for replacement. If you use lamps other than LMP-F250, the projector may cause a malfunction.
- Be sure to turn off the projector and unplug the power cord before replacing the lamp.
- Do not put your hands into the lamp replacement spot, or not fall any liquid or object into it to avoid electrical shock or fire.

Disposal of used projector lamp

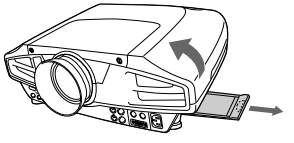
As the materials used in this lamp are similar to those of a fluorescent lamp, you should dispose of a used projector lamp in the same way as a fluorescent lamp.

Cleaning the Air Filter

The air filter should be cleaned every 300 hours.
When it becomes difficult to remove the dust from the filter, replace the filter with a new one.
To clean the air filter, follow the steps below:

1 Turn off the power and unplug the power cord.

2 Raise the side of the projector, and pull out the air filter.



3 Remove the dust from the filter with a vacuum cleaner.

4 Insert the air filter all the way in utnil it is securely in place.

Note

Be sure to insert the air filter firmly; the power will not be turned on if it is not closed securely.

http://getMANUAL.com

Troubleshooting

If the projector appears to be operating erratically, try to diagnose and correct the problem, using the following guide. If the problem still persists, consult with qualified Sony personnel.

Power

Symptom	Cause	Remedy
The power is not turned on.	The power has been turned off and on with the I / ⏻ key at a short interval.	Wait for about 120 seconds before turning on the power *(see page 20 (GB))*.
	The lamp cover is detached.	Close the lamp cover securely *(see page 30 (GB))*.
	The air filter is not inserted securely.	Insert the air filter securely *(see page 31 (GB))*.

Image

Symptom	Cause	Remedy
No picture.	Cable is disconnected or not connected properly.	Check that the proper connections have been made *(see pages 15 (GB) to 17 (GB))*.
	Input selection is incorrect.	Select the input source correctly using the INPUT key *(see page 18 (GB))*.
	The picture is cut off.	Press the PIC MUTING key to release the muting function *(see page 19 (GB))*.
	The computer signal is not set to output to external monitor.	Set the computer signal to output to external monitor *(see page 15 (GB))*.
	The computer signal is set to output to both the LCD of the computer and external monitor.	Set the computer signal to output only to external monitor *(see page 15 (GB))*.
The picture is noisy.	Noise may appear on the background depending on the combination of the numbers of dot input from the connector and numbers of pixel on the LCD panel.	Change the desktop pattern on the connected computer.
On-screen display does not appear.	STATUS in the SET SETTING menu has been set to OFF.	Set STATUS in the SET SETTING menu to ON *(see page 26 (GB))*.
The picture from INPUT B connector is not projected.	Setting for INPUT-B TERM. in the SET SETTING menu is incorrect.	Set INPUT-B TERM. in the SET SETTING menu correctly according to the input signal *(see page 26 (GB))*.
The picture from INPUT C is frozen.	There is something wrong with the Windows CE software.	Set INPUT C FUNC. in the INSTALL SETTING menu to OFF, then set it to ON again *(see page 27 (GB))*.
Color balance of the video picture is not correct.	The color system of the input signal is not set correctly.	Set COLOR SYS in the PICTURE CTRL menu to match the color system of the input signal *(see page 23 (GB))*.

Others

Symptom	Cause	Remedy
The LAMP/COVER indicator flashes.	The lamp cover is detached or the air filter is not inserted securely.	Attach the lamp cover or insert the air filter securely *(see pages 30 (GB) and 31 (GB))*.
The LAMP/COVER indicator lights up.	The lamp has reached the end of its life.	Replace the lamp *(see page 30 (GB))*.
	The lamp becomes a high temperature.	Wait for 120 seconds to cool down the lamp and turn on the power again *(see page 20 (GB))*.
The TEMP/FAN indicator flashes.	The fan is broken.	Consult with qualified Sony personnel.
The TEMP/FAN indicator lights up.	The internal temperature is unusually high.	Check to see if nothing is blocking the ventilation holes.
Both LAMP/COVER and TEMP/FAN indicators light up.	The electric system failed.	Consult with qualified Sony personnel.
The INPUT C window does not appear, or INPUT C cannot be selected.	INPUT C FUNC. is set to OFF.	Set INPUT C FUNC. in the INSTALL SETTING menu to ON *(see page 27 (GB))*.
The menu display does not appear even when you press the MENU key on the Remote Commander.	The PJ/NETWORK select switch on the Remote Commander is set to NETWORK.	Set the PJ/NETWORK select switch to PJ, then press the MENU key.

Warning messages

Use the list below to check the meaning of the messages displayed on the screen.

Message	Meaning	Remedy
High temp.! Lamp off in 1 min.	Internal temperature is too high.	Turn off the power. Check to see if nothing is blocking the ventilation holes.
Frequency is out of range!	This input signal cannot be projected as the frequency is out of the acceptable range of the projector.	Input a signal that is within the range of the frequency.
	The resolution setting of the output signal of a computer is too high.	Set the setting of output to the XGA *(see page 15 (GB))*.
Please check INPUT-A setting.	You have input RGB signal from the computer when INPUT-A in the SET SETTING menu is set to COMPONENT or VIDEO GBR.	Set INPUT-A correctly *(see page 26 (GB))*.
Please replace the LAMP.	It is time to replace the lamp.	Please replace the lamp.
Backup Battery Very Low	A backup battery for the Windows CE is exhausted.	Consult with qualified Sony personnel.

Caution messages

Use the list below to check the meaning of the messages displayed on the screen.

Message	Meaning	Remedy
NO INPUT	No input signal	Check connections *(see pages 15 (GB) to 17 (GB))*.
Not applicable!	You have pressed the wrong key.	Press the appropriate key.
LENS CONTROL is locked! Do you wish to unlock?	LENS CONTROL in the INSTALL SETTING menu is set to OFF.	Select YES, or set LENS CONTROL in the INSTALL SETTING menu to ON, according to your requirement.

Specifications

Optical characteristics

Projection system	3 LCD panels, 1 lens, projection system
LCD panel	1.3-inch TFT SONY LCD panel with micro-lens array, 2,359,296 pixels (1024 × 768 pixels × 3)
Lens	Approx. 1.3 times power zoom/ focus lens f 50.8 to 64.0 mm/F 1.7 to 2.0
Lamp	250 W UHP
Projection picture size	
	Range: 40 to 300 inches (diagonal measure)
Light output	ANSI lumen[1] 3500 lm
Throwing distance	40-inch: 1490 to 1820 mm (58 3/4 to 71 3/4 inches)
	60-inch: 2280 to 2780 mm (89 7/8 to 109 1/2 inches)
	80-inch: 3060 to 3740 mm (120 1/2 to 147 3/8 inches)
	100-inch: 3850 to 4700 mm (151 5/8 to 185 1/8 inches)
	120-inch: 4630 to 5660 mm (182 3/8 to 222 7/8 inches)
	150-inch: 5810 to 7100 mm (228 7/8 to 279 5/8 inches)
	180-inch: 6990 to 8540 mm (275 1/4 to 336 3/8 inches)
	200-inch: 7770 to 9500 mm (306 to 374 1/8 inches)
	250-inch: 9740 to 11900 mm (383 5/8 to 468 5/8 inches)
	300-inch: 11700 to 14300 mm (460 3/4 to 563 1/8 inches)

Electrical characteristics

Color system	$NTSC_{3.58}$/PAL/SECAM/$NTSC_{4.43}$/ PAL-M/PAL-N system, switched automatically/manually
Resolution	750 horizontal TV lines (Video input) 1024 × 768 pixels (RGB input)
Acceptable computer signals	
	fH: 15 to 91 kHz fV: 43 to 85 Hz

Input/Output

VIDEO IN	VIDEO: BNC type Composite video: 1 Vp-p ±2 dB sync negative (75 ohms terminated) S VIDEO: Y/C mini DIN 4-pin type (male) Y (luminance): 1 Vp-p ±2 dB sync negative (75 ohms terminated) C (chrominance): burst 0.286 Vp-p ±2 dB (NTSC) (75 ohms terminated), burst 0.3 Vp-p ±2 dB (PAL) (75 ohms terminated)
VIDEO OUT	VIDEO: Loop-through BNC type Loop-through output from the VIDEO IN connector S VIDEO: Loop-through mini DIN 4-pin type (male) Loop-through output from the S VIDEO IN connector
INPUT A	Analog RGB/component: 5BNC (female) R/R-Y: 0.7 Vp-p ±2 dB (75 ohms terminated) G: 0.7 Vp-p ±2 dB (75 ohms terminated) G with sync/Y: 1 Vp-p ±2 dB sync negative (75 ohms terminated) B/B-Y: 0.7 Vp-p ±2 dB (75 ohms terminated) SYNC/HD: Composite sync input: 1-5 Vp-p high impedance, positive/ negative Horizontal sync input: 1-5 Vp-p high impedance, positive/ negative VD: Vertical sync input: 1-5 Vp-p high impedance, positive/ negative
INPUT B	Digital/Analog RGB: DVI-I (TMDS)
INPUT C	ETHER 10BASE-T standard
	PC CARD slot PC card slot Type II
MONITOR OUT	HD D-sub 15-pin (female) R/R-Y, G/Y, B/B-Y: Gain Unity, 75ohms SYNC/HD, VD: 4Vp-p (open), 1Vp-p (75ohms)
RS-232C	D-sub 9-pin (female)
CONTROL S IN/PLUG IN POWER	
	Stereo minijack 5Vp-p, plug in power, DC5V
TRIG	Minijack Power on: DC 12 V, output impedance: 4.7 kilohms Power off: 0 V
Safety regulations:	UL1950, cUL1950, DHHS (Laser), DNHW (Laser), FCC Class A, IC Class A, EN60 950 (NEMKO), CE, C-Tick, EN60 825-1 (Laser), VCCI class B, JEIDA

Laser beam

Laser type	Class 2
Wavelength	670 nm
Output	1 mW

General

Dimensions	480 × 167 × 502 mm (19 × 6 1/2 × 19 7/8 inches) (w/h/d)
Mass	Approx. 10.5 kg (23 lb 2 oz)
Power requirements	
	AC 100 to 240 V, 50/60 Hz
Power consumption	
	Max. 360 W Standby mode: 5 W (when INPUT-C FUNC. is set to ON: 10 W) 3.6–1.5A
Heat dissipation	1228.6 BTU
Operating temperature	
	0°C to 40°C (32°F to 104°F)
Operating humidity	
	35% to 85% (no condensation)
Storage temperature	
	–20°C to 60°C (–4°F to 140°F)
Storage humidity	10% to 90%

Supplied accessories

Remote Commander RM-PJM50 (1)
Size AA (R6) batteries (2)
Lens Cap (1)
Strap for Remote Commander (1)
AC power cord (1)
Operating Instructions (1)
Operating Instructions for Networking (1)
Installation Manual for Dealers (1)
Warranty Booklet (1)

Design and specifications are subject to change without notice.

Optional accessories

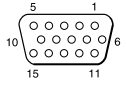
Projector Lamp LMP-F250 (for replacement)
Projector Suspension Support PSS-620
Monitor Cable
SMF-400 (HD D-sub 15-pin (male) ⟷ 5 × BNC (male))
SMF-410 (HD D-sub 15-pin (male) ⟷ HD D-sub 15-pin (male))
Signal Interface Cable
SIC-10 (5 × BNC (male) ⟷ 5 × BNC (male))
Projection Lens
Long Focus Zoom Lens VPLL-ZM101
Short Focus Zoom Lens VPLL-ZM31
Fixed Short Focus Lens VPLL-FM21

Some of the items may not be available in some areas. For details, please consult your nearest Sony office.

1) ANSI lumen is a measuring method of American National Standard IT 7.228.

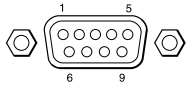
Pin assignment

MONITOR OUT connector (HD D-sub 15-pin, female)



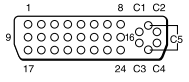
1	R	9	NC
2	G	10	GND
3	B	11	GND
4	NC	12	NC
5	GND	13	HD/C.Sync
6	GND (R)	14	VD
7	GND (G)	15	NC
8	GND (B)		

RS-232C connector (D-sub 9-pin, female)



1	DCD	6	DSR
2	RX DA	7	RTS
3	TX DA	8	CTS
4	DTR	9	RI
5	GND		

DVI input connector (DVI-I, female)



1	T.M.D.S. Data2–	16	Hot Plug Detect
2	T.M.D.S. Data2+	17	T.M.D.S. Data0–
3	T.M.D.S. Data2/4 Shield	18	T.M.D.S. Data0+
4	T.M.D.S. Data4–	19	T.M.D.S. Data0/5 Shield
5	T.M.D.S. Data4+	20	T.M.D.S. Data5–
6	DDC Clock	21	T.M.D.S. Data5+
7	DDC Data	22	T.M.D.S. Clock Shield
8	Analog Vertical Sync	23	T.M.D.S. Clock+
9	T.M.D.S. Data1–	24	T.M.D.S. Clock–
10	T.M.D.S. Data1+	C1	Analog Red
11	T.M.D.S. Data1/3 Shield	C2	Analog Green
12	T.M.D.S. Data3–	C3	Analog Blue
13	T.M.D.S. Data3+	C4	Analog Horizontal Sync
14	+5V Power	C5	Analog Ground (analog R, G & B return)
15	Ground (return for +5V, HSync, and VSync)		

Index

A

Adjuster 10 (GB)
Adjusting
  memory of the settings 21 (GB)
  the picture 22 (GB)
  the picture size/shift 24 (GB)
Air filter 31 (GB)
APA function 19 (GB)
ASPECT 24 (GB)
AUTO INPUT SEL 26 (GB)

B

5BNC input connectors 12 (GB), 15 (GB)
Battery
  installation 14 (GB)
  notes 14 (GB)
BRIGHT 22 (GB)

C

COLOR 22 (GB)
COLOR SYS (System) 23 (GB)
COLOR TEMP 22 (GB)
Condensation 29 (GB)
Connections
  component equipment 16 (GB)
  computer 15 (GB)
  LAN 16 (GB)
  VCR 15 (GB)
CONTRAST 22 (GB)
Cut off
  the picture 19 (GB)

D, E, F

DDE (Digital Detail Enhancer) 23 (GB)
DIGIT KEYSTONE 27 (GB)
D. (Dynamic) PICTURE 22 (GB)
DOT PHASE 23 (GB)
DVI connector 15 (GB)
  pin assignment 36 (GB)
Freeze function 20 (GB)

G

GAMMA MODE 22 (GB)

H

HUE 22 (GB)

I, J, K

INPUT-A 26 (GB)
INPUT-B TERM. 26 (GB)
INPUT-C FUNC. 27 (GB)
INPUT SETTING menu 23 (GB)
INSTALL SETTING menu 26 (GB)
INSTALLATION 27 (GB)
Installation example 28 (GB)
IR RECEIVER 26 (GB)
KEYSTONE MEM 27 (GB)

L

LAMP MODE 27 (GB)
Lamp replacement 30 (GB)
LAMP TIMER 27 (GB)
LANGUAGE 26 (GB)
LENS CONTROL 27 (GB)
LENS FOCUS 10, 19 (GB)
LENS SHIFT 10, 19 (GB)
LENS ZOOM 10, 19 (GB)
Location and function of controls
  connector panel 12 (GB)
  control panel 10 (GB)
  front 9 (GB)
  rear/bottom 9 (GB)
  Remote Commander 13 (GB)

M, N

Menu
  clearing the menu display 21 (GB)
  INPUT SETTING menu 23 (GB)
  INSTALL SETTING menu 26 (GB)
  PICTURE CTRL menu 22 (GB)
  SET SETTING menu 25 (GB)
  using the menu 21 (GB)
MENU BACKGRND 27 (GB)
MENU COLOR 27 (GB)
MENU POSITION 27 (GB)
Messages
  cautions 33 (GB)
  warnings 33 (GB)
Notes for installation 29 (GB)
  unsuitable conditions for use 29 (GB)
  unsuitable installation 29 (GB)

O

Optional accessories 35 (GB)

P, Q

PICTURE CTRL menu 22 (GB)
Pin assignment 36 (GB)
Power
  turn off 20 (GB)
  turn on 18 (GB)
POWER SAVING 11 (GB), 26 (GB)
Precautions 7 (GB)
Projecting 18 (GB)

R

Remote Commander
  battery installation 14 (GB)
  D ZOOM key 20 (GB)
  FUNCTION key 13 (GB)
  laser pointer function 20 (GB)
  location and function of controls 13 (GB)
Remote control detector
  front 9 (GB)
  rear 9 (GB)
  setting 26 (GB)
Reset
  resettable items 21 (GB)
  resetting the item 21 (GB)
RGB ENHANCER 22 (GB)
RS-232C connector 12 (GB)
  pin assingment 36 (GB)

S

SCAN CONV (Scan converter) 24 (GB)
Screen size 14 (GB), 34 (GB)
SET SETTING menu 25 (GB)
SHARP 22 (GB)
SHIFT 24 (GB)
SIZE H 24 (GB)
Specifications 34 (GB)
STATUS (on-screen display) 26 (GB)
Supplied accessories 35 (GB)

T, U

Troubleshooting 32 (GB)

V, W, X, Y, Z

Ventilation holes
  exhaust 9 (GB)
  intake 9 (GB)

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LCD Data Projector

特約店様用設置説明書　3～8、28～47ページ、裏表紙
この特約店様用設置説明書には、レンズの交換方法、別売りのレンズ使用時や天井吊りの場合の設置寸法など、製品の設置時に必要な情報を記載しています。

⚠警告　電気製品は、安全のための注意事項を守らないと、火災や人身事故になることがあります。

この特約店様用設置説明書には、事故を防ぐための重要な注意事項を示しています。**この設置説明書をよくお読みのうえ**、製品を安全にお使いください。お読みになったあとは、いつでも見られるところに必ず保管してください。

Installation Manual for Dealers　Pages 3, 9 to 11, 28 to 47, and back cover
This installation Manual for Dealers explains how to install the projector. For example, it explains lens replacement, installation measurements when using the optional lens and hanging the projector from the ceiling.

Manuel d'installation pour les revendeurs　Pages 3, 12 à 14, 28 à 47, et couverture dos
Le manuel d'installation pour les revendeurs explique comment installer le projecteur. Par exemple, il explique la procédure de remplacement de l'objectif, les dimensions d'installation lorsque vous employez l'objectif en option et comment suspendre le projecteur au plafond.

Manual de instalación para proveedores　Páginas 3, 15 a 17, 28 a 47, y cubierta posterior
En este manual de instalación para proveedores se describe cómo instalar el proyector. Por ejemplo, se describe cómo sustituir el objetivo, las medidas de instalación cuando se utiliza el objetivo opcional y cómo colgar el proyector en el techo.

Installationsanleitung für Händler　Seite 3, 18 bis 21, 28 bis 47, und Hintere Umschlagseite
In dieser Installationsanleitung für Händler wird erläutert, wie Sie den Projektor installieren. Beispielsweise werden das Austauschen des Objektivs, die Installationsabmessungen beim Verwenden des gesondert erhältlichen Objektivs und das Installieren des Projektors an der Decke beschrieben.

Manuale d'installazione per i rivenditori　Pagine 3, 22 a 24, 28 a 47, e piatto posteriore
Il presente manuale contiene le istruzioni relative all'installazione del proiettore. Vengono riportate ad esempio le istruzioni su come sostituire l'obiettivo, le misure di installazione quando si utilizza l'obiettivo opzionale e le procedure dell'installazione al soffitto.

经销商用安装说明书　第 3、25 至 27、28 至 47 页和封底
本说明书为经销商讲解投影机的安装方法。例如，更换透镜的方法、使用选购透镜和悬吊安装时的安装尺寸。

VPL-FX50

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日本語

目次

⚠ 警告 4
⚠ 注意 4
電池についての安全上のご注意 5
本機の性能を保持するために 6
概要 6
レンズ交換のしかた 7
設置寸法 28
床置き 28
天井つり 32
プロジェクターサスペンションサポートPSS-620の取り付けかた 36
床置き、ツインスタック 38
寸法図 45

English

Table of Contents

Precautions 9
Overview 10
Replacing the Lens 10
Installation Diagram 28
Floor Installation 28
Ceiling Installation 32
Attaching the projector suspension support PSS-620 36
Floor installation for twin-stacking 38
Dimensions 45

Français

Table des matières

Précautions 12
Aperçu 13
Remplacement de l'objectif 13
Schéma d'installation 28
Installation au sol 28
Installation au plafond 32
Fixation du support de suspension de projecteur PSS-620 36
Installation au sol en double empilage 38
Dimensions 45

Español

Indice

Precauciones 15
Introducción 16
Sustitución del objetivo 16
Diagrama de instalación 28
Instalación en el suelo 28
Instalación en el techo 32
Instalación del soporte de suspensión del proyector PSS-620 36
Instalación en el suelo para apilamiento doble 38
Dimensiones 45

Deutsch

Inhalt

Sicherheitsmaßnahmen 18
Übersicht 19
Austauschen des Objektivs 20
Installationsdiagramm 28
Installation am Boden 28
Installation an der Decke 32
Anbringen der Projektoraufhängung PSS-620 36
Installation am Boden für die Doppelprojektion 39
Abmessungen 45

Italiano

Indice

Precauzioni 22
Presentazione 23
Sostituzione dell'obiettivo 23
Diagramma di installazione 28
Installazione sul pavimento 28
Installazione sul soffitto 32
Applicazione del supporto di sospensione del proiettore PSS-620 36
Installazione al pavimento per impilazione 39
Dimensioni 45

中文

目录

使用前须知 25
概要 26
更换透镜 26
安装图 28
落地安装 28
悬吊安装 32
安装投影机悬吊支架 PSS-620 36
两台叠装的落地安装 39
尺寸 45

English

Precautions

On safety

- Check that the operating voltage of your unit is identical with the voltage of your local power supply. If voltage adaptation is required, consult with qualified Sony personnel.
- Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by qualified Sony personnel before operating it further.
- Unplug the unit from the wall outlet if it is not to be used for several days.
- To disconnect the cord, pull it out by the plug. Never pull the cord itself.
- The wall outlet should be near the unit and easily accessible.
- The unit is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the unit itself has been turned off.
- Do not look into the lens while the lamp is on.
- Do not place your hand or objects near the ventilation holes — the air coming out is hot.
- Avoid using an extension cord with a low voltage limited since it may cause the short-circuit and physical incidents.
- To carry the projector, be sure to hold the both sides of it tightly. Do not hold other parts of the projector, especially the lens, nor catch your finger between the floor and the projector.
- Do not catch your finger between the unit and surface of the floor when moving the projector installed on the floor.
- Be careful not to catch your finger in the cooling fan.
- Do not carry the projector with the cabinet on and with its cover open.

On installation

- When the projector is mounted on the ceiling, the Sony PSS-620 Projector Suspension Support must be used for installation.
- Allow adequate air circulation to prevent internal heat build-up. Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation holes. Leave space of more than 50 cm (19 3/4 inches) between the wall and the projector. Be aware that room heat rises to the ceiling; check that the temperature near the installation location is not excessive.
- Install the projector on the floor or ceiling. Any other installation causes a mulfunction such as color irregularity or shortening lamp life.
- Do not install the unit in a location near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust or humidity, mechanical vibration or shock.
- To avoid moisture condensation, do not install the unit in a location where the temperature may rise rapidly.
- Be sure to secure the cabinet cover firmly when installing to the ceiling firmly.

On illumination

- To obtain the best picture, the front of the screen should not be exposed to direct lighting or sunlight.
- Ceiling-mounted spot lighting is recommended. Use a cover over fluorescent lamps to avoid lowering the contrast ratio.
- Cover any windows that face the screen with opaque draperies.
- It is desirable to install the projector in a room where floor and walls are not of light-reflecting material. If the floor and walls are of reflecting material, it is recommended that the carpet and wall paper be changed to a dark color.

On preventing internal heat build-up

- After you turn off the power with the I / ⏻ key on the control panel or on the Remote Commander, do not disconnect the unit from the wall outlet while the cooling fan is still running.
- Do not disconnect the AC power cord from the wall outlet while the fan is still running.

Caution

The projector is equipped with ventilation holes (intake) at the bottom and ventilation holes (exhaust) at the front. Do not block or place anything near these holes, or internal heat build-up may occur, causing picture degradation or damage to the projector.

On cleaning

- To keep the cabinet looking new, periodically clean it with a soft cloth. Stubborn stains may be removed with a cloth lightly dampened with a mild detergent solution. Never use strong solvents, such as thinner, benzene, or abrasive cleansers, since these will damage the cabinet.
- Avoid touching the lens. To remove dust on the lens, use a soft dry cloth. Do not use a damp cloth, detergent solution, or thinner.
- Clean the filter at regular intervals.

On repacking

Save the original shipping carton and packing material; they will come in handy if you ever have to ship your unit. For maximum protection, repack your unit as it was originally packed at the factory.

Overview

This manual describes how to install the Sony LCD Data Projector VPL-FX50, how to replace the lens and installation diagrams. When you replace the lens, also refer to the Operating Instructions.

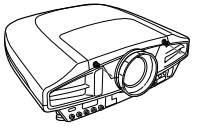
Replacing the Lens

You can install the following three types of lenses in the projector.
- VPLL-ZM101 Long Focus Zoom Lens
- VPLL-ZM31 Short Focus Zoom Lens
- VPLL-FM21 Fixed Short Focus Lens

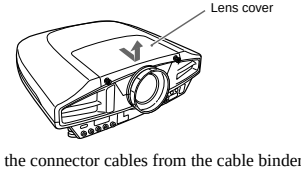
Follow the steps below to replace the lens.
For details on replacing the lens, also refer to the installation manual supplied with the lens.

1 Turn off the power and disconnect the power cable.

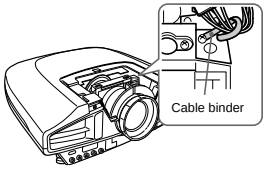
2 Loosen the two screws on the lens cover using a Phillips screwdriver.



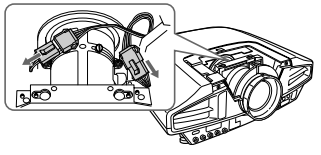
3 Remove the lens cover by sliding it forward, then lifting it.



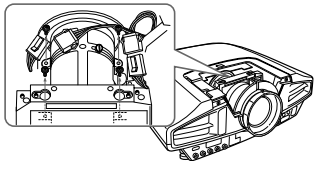
4 Release the connector cables from the cable binder by opening it.
Skip this step and the next when replacing a lens other than the standard one.



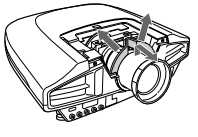
5 Disconnect the two connectors on the lens from those on the projector.



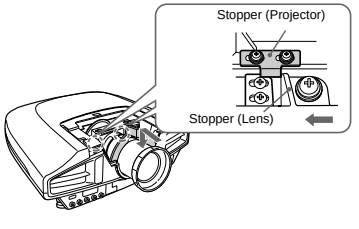
6 Remove the four screws (M4×12, with washers) locking the lens by using a Phillips screwdriver.



7 Remove the lens by lifting it slightly, widening the lens cushion and sliding it forward.



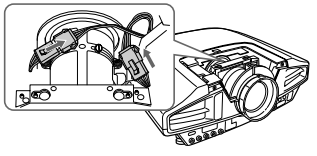
8 Widen the lens cushion and install the lens so that the lens stopper and the projector stopper meet at their edges.



Notes
- Be sure not to catch the connectors when installing the lens.
- For ease of identification when you install the lens, make sure that the label on the lens is facing up.

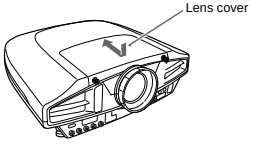
9 Tighten the four screws to secure the replacement lens firmly.

10 Connect the two connectors.
Skip this step and the next when installing a lens other than the standard one.



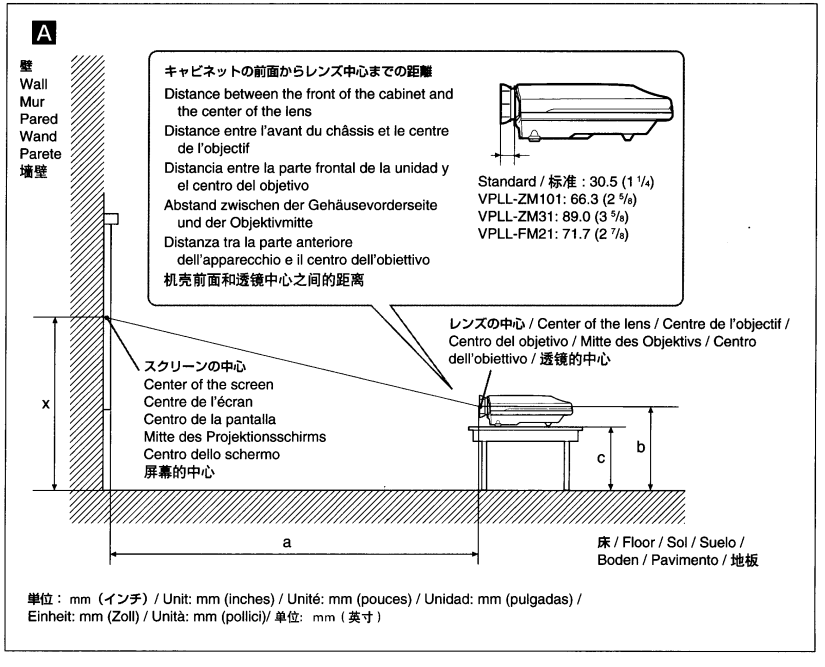
11 Fasten the connector cables you released in step 4 with the cable binder.

12 Install the lens cover by sliding it from front to back.



13 Tighten the two screws to secure the lens cover firmly.

Notes
- The lens scratches easily, so when handling it, always place it gently on a stable and level surface in a horizontal position.
- Avoid touching the lens surface.


A
壁
Wall
Mur
Pared
Wand
Parete
墻壁
キャビネットの前面からレンズ中心までの距離
Distance between the front of the cabinet and the center of the lens
Distance entre l'avant du châssis et le centre de l'objectif
Distancia entre la parte frontal de la unidad y el centro del objetivo
Abstand zwischen der Gehäusevorderseite und der Objektivmitte
Distanza tra la parte anteriore dell'apparecchio e il centro dell'obiettivo
机壳前面和透镜中心之间的距离
Standard / 标准 : 30.5 (1 1/4)
VPLL-ZM101: 66.3 (2 5/8)
VPLL-ZM31: 89.0 (3 5/8)
VPLL-FM21: 71.7 (2 7/8)
レンズの中心 / Center of the lens / Centre de l'objectif / Centro del objetivo / Mitte des Objektivs / Centro dell'obiettivo / 透镜的中心
スクリーンの中心
Center of the screen
Centre de l'écran
Centro de la pantalla
Mitte des Projektionsschirms
Centro dello schermo
屏幕的中心
x
c
b
a
床 / Floor / Sol / Suelo / Boden / Pavimento / 地板
単位： mm（インチ）/ Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici)/ 単位: mm（英寸）

日本語

設置寸法

床置き

プロジェクターを机などの上に置いて設置する場合の設置例を示します。A

設置寸法については、30ページの表をご覧ください。
標準レンズの場合は、取扱説明書をご覧ください。

イラスト中のアルファベットは、以下の距離を示します。
a：レンズの中心からスクリーンまでの距離
b：床からレンズの中心までの距離
c：床からプロジェクターの脚までの距離
x：任意

English

Installation Diagram

Floor Installation

This section describes the examples for installing the projector on the desk, etc. A

See the charts on page 30 concerning the installation measurements.
When using the standard lens, refer to the operating instructions.

The alphabetical letters in the illustration indicate the distances below.
a : distance between the screen and the center of the lens
b : distance between the floor and the center of the lens
c : distance between the floor and the bottom of the adjusters of the projector
x : free

単位：mm（インチ）/ Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici) / 単位: mm（英寸）

■ VPLL-ZM101

SS		40	60	80	100	120	150	180	200	250	300
a	N	2600 (102 3/8)	4000 (157 1/2)	5410 (213 1/8)	6810 (268 1/4)	8220 (323 3/4)	10330 (406 3/4)	12430 (489 1/2)	13840 (545)	17350 (683 1/4)	20870 (821 7/8)
	M	3890 (153 1/4)	5940 (234)	7980 (314 1/4)	10030 (394 15/16)	12080 (475 3/4)	15150 (596 5/8)	18220 (717 1/2)	20270 (798 1/4)	25380 (999 3/8)	30500 (1201)
b	N	x-305 (x-12 1/8)	x-457 (x-18)	x-610 (x-24 1/8)	x-762 (x-30)	x-914 (x-36)	x-1143 (x-45)	x-1372 (x-54 1/8)	x-1524 (x-60)	x-1905 (x-75 1/8)	x-2286 (x-90 1/8)
	M	x									
c	N	x-415 (x-16 3/8)	x-567 (x-22 3/8)	x-720 (x-28 3/8)	x-872 (x-34 3/8)	x-1024 (x-40 3/8)	x-1253 (x-49 3/8)	x-1482 (x-58 3/8)	x-1634 (x-64 3/8)	x-2015 (x-79 11/32)	x-2396 (x-94 3/8)
	M	x-100 (x-4)									

a (N) = {(SS × 89.822/1.3102) – 209.3} × 1.025
a (M) = {(SS × 137.560/1.3102) – 211.6} × 0.975
b (N) = x – (SS/1.3102 × 9.984)
c (N) = x – (SS/1.3102 × 9.984 +110)

■ VPLL-ZM31

SS		40	60	80	100	120	150	180	200	250	300
a	N	1190 (46 7/8)	1840 (72 1/2)	2490 (98 1/8)	3150 (124 1/8)	3800 (149 5/8)	4780 (188 1/4)	5760 (226 7/8)	6410 (252 1/2)	8050 (317)	9680 (381 1/4)
	M	1250 (49 1/4)	1940 (76 1/2)	2620 (103 1/4)	3300 (130)	3980 (156 3/4)	5000 (196 7/8)	6030 (237 7/16)	6710 (264 1/4)	8410 (331 1/4)	10120 (398 1/2)
b	N	x-305 (x-12 1/8)	x-457 (x-18)	x-610 (x-24 1/8)	x-762 (x-30)	x-914 (x-36)	x-1143 (x-45)	x-1372 (x-54 1/8)	x-1524 (x-60)	x-1905 (x-75 1/8)	x-2286 (x-90 1/8)
	M	x									
c	N	x-415 (x-16 3/8)	x-567 (x-22 3/8)	x-720 (x-28 3/8)	x-872 (x-34 3/8)	x-1024 (x-40 3/8)	x-1253 (x-49 3/8)	x-1482 (x-58 3/8)	x-1634 (x-64 3/8)	x-2015 (x-79 11/32)	x-2396 (x-94 3/8)
	M	x-100 (x-4)									

a (N) = {(SS × 41.750/1.3102) – 116.3} × 1.025
a (M) = {(SS × 45.821/1.3102) – 112.9} × 0.975
b (N) = x – (SS/1.3102 × 9.984)
c (N) = x – (SS/1.3102 × 9.984 +110)

■ VPLL-FM21

SS	40	60	80	100	120	150	180	200	250	300
a	690 (27 1/4)	1080 (42 5/8)	1460 (57 1/2)	1850 (72 7/8)	2240 (88 1/4)	2820 (111 1/8)	3400 (133 7/8)	3780 (148 7/8)	4750 (187 1/8)	5720 (225 1/4)
b	x									
c	x-100 (x-4)									

a = {(SS × 24.711/1.3102) – 81.9} × 1.025
b = x
c = x – 100

日本語

設置寸法

床置き

各レンズの設置寸法と計算方法を上記に示します。

表および計算式のアルファベットは以下の意味を示します。
SS：スクリーンサイズ対角（インチ）
a ：レンズの中心からスクリーンまでの距離
b ：床からレンズの中心までの距離
c ：床からプロジェクターの脚までの距離
x ：任意
N ：最小値
M ：最大値

VPLL-FM21をご使用の場合はレンズの中心とスクリーンの中心の高さが同じになるように設置して下さい。

English

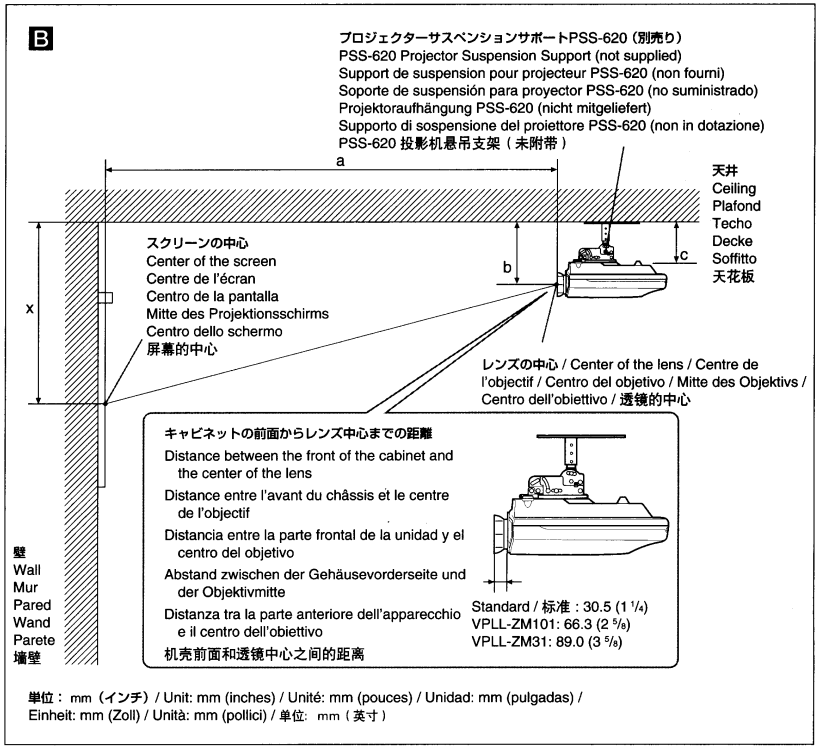
Installation Diagram

Floor Installation

The installation measurements and their calculation method for each lens are shown above.

The alphabetical letters in the charts and calculation methods indicate the following.
SS : screen size measured diagonally (inches)
a : distance between the screen and the center of the lens
b : distance between the floor and the center of the lens
c : distance between the floor and the bottom of the adjusters of the projector
x : free
N : minimum
M : maximum

When using the VPLL-FM21, make sure that the center of the lens is aligned with the vertical center of the screen.



単位： mm（インチ）/ Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici) / 单位: mm（英寸）

日本語

天井つり

プロジェクターを天井からつり下げて設置する場合の設置例を示します。B
天井つりの場合は、プロジェクターサスペンションサポートPSS-620をご使用ください。
設置は、代理店またはソニーサービスにおまかせください。

設置寸法については、34ページの表をご覧ください。

イラスト中のアルファベットは、以下の距離を示します。
a：レンズの中心からスクリーンまでの距離
b：天井からレンズの中心までの距離
c：天井からサスペンションサポートの取り付け面までの距離
x：天井からスクリーンの中心までの距離

English

Ceiling Installation

This section describes the examples for installing the projector on the ceiling. B
When installing the projector on the ceiling, use the PSS-620 Projector Suspension Support.
For ceiling installation, ask for qualified Sony personnel only.

See the charts on page 34 concerning the installation measurements.

The alphabetical letters in the illustration indicate the distances below.
a : distance between the screen and the center of the lens
b : distance between the ceiling and the center of the lens
c : distance between the ceiling and the surface of the mounting bracket
x : distance between the ceiling and the center of the screen

単位：mm（インチ）/ Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici) / 单位: mm（英寸）

■ 標準レンズ / Standard lens / Objectif standard / Objetivo estándar / Standardobjektiv / Uso Obiettivo standard /标准透镜

SS		40	60	80	100	120	150	180	200	250	300
a	N	1490 (58 3/4)	2280 (89 7/8)	3060 (120 1/2)	3850 (151 5/8)	4630 (182 3/8)	5810 (228 7/8)	6980 (274 7/8)	7770 (306)	9730 (383 1/8)	11690 (460 3/8)
	M	1820 (71 3/4)	2780 (109 1/2)	3740 (147 3/8)	4700 (185 1/8)	5660 (222 7/8)	7100 (279 5/8)	8540 (336 3/8)	9500 (374 1/8)	11900 (468 5/8)	14300 (563 1/8)
b	N	c+91.4 (c+3 5/8)									
	M	c+101.4 (c+4)									
x	N	c+100 (c+4)									
	M	c+406 (c+16)	c+558 (c+22)	c+711 (c+28)	c+863 (c+34)	c+1015 (c+40)	c+1244 (c+49)	c+1473 (c+58)	c+1625 (c+64)	c+2006 (c+79)	c+2387 (c+94)

a (N) = {(SS × 50.127/1.3102) – 73.9} × 1.025
a (M) = {(SS × 64.519/1.3102) – 107.9} × 0.975
x (M) = c + (SS/1.3102 × 9.984 + 101)

■ VPLL-ZM101

SS		40	60	80	100	120	150	180	200	250	300
a	N	2600 (102 3/8)	4000 (157 1/2)	5410 (213 1/8)	6810 (268 1/4)	8220 (323 3/4)	10330 (406 3/4)	12430 (489 1/2)	13840 (545)	17350 (683 1/4)	20870 (821 7/8)
	M	3890 (153 1/4)	5940 (234)	7980 (314 1/4)	10030 (394 15/16)	12080 (475 3/4)	15150 (596 5/8)	18220 (717 1/2)	20270 (798 1/4)	25380 (999 3/8)	30500 (1201)
b	N	c+91.4 (c+3 5/8)									
	M	c+101.4 (c+4)									
x	N	c+100 (c+4)									
	M	c+406 (c+16)	c+558 (c+22)	c+711 (c+28)	c+863 (c+34)	c+1015 (c+40)	c+1244 (c+49)	c+1473 (c+58)	c+1625 (c+64)	c+2006 (c+79)	c+2387 (c+94)

a (N) = {(SS × 89.822/1.3102) – 209.3} × 1.025
a (M) = {(SS × 137.560/1.3102) – 211.6} × 0.975
x (M) = c + (SS/1.3102 × 9.984 + 101)

■ VPLL-ZM31

SS		40	60	80	100	120	150	180	200	250	300
a	N	1190 (46 7/8)	1840 (72 1/2)	2490 (98 1/8)	3150 (124 1/8)	3800 (149 5/8)	4780 (188 1/4)	5760 (226 7/8)	6410 (252 1/2)	8050 (317)	9680 (381 1/4)
	M	1250 (49 1/4)	1940 (76 1/2)	2620 (103 1/4)	3300 (130)	3980 (156 3/4)	5000 (196 7/8)	6030 (237 7/16)	6710 (264 1/4)	8410 (331 1/4)	10120 (398 1/2)
b	N	c+91.4 (c+3 5/8)									
	M	c+101.4 (c+4)									
x	N	c+100 (c+4)									
	M	c+406 (c+16)	c+558 (c+22)	c+711 (c+ 28)	c+863 (c+ 34)	c+1015 (c+40)	c+1244 (c+49)	c+1473 (c+58)	c+1625 (c+64)	c+2006 (c+79)	c+2387 (c+ 94)

a (N) = {(SS × 41.750/1.3102) – 116.3} × 1.025
a (M) = {(SS × 45.821/1.3102) – 112.9} × 0.975
x (M) = c + (SS/1.3102 × 9.984 + 101)

日本語

天井つり

各レンズの設置寸法と計算方法を上記に示します。

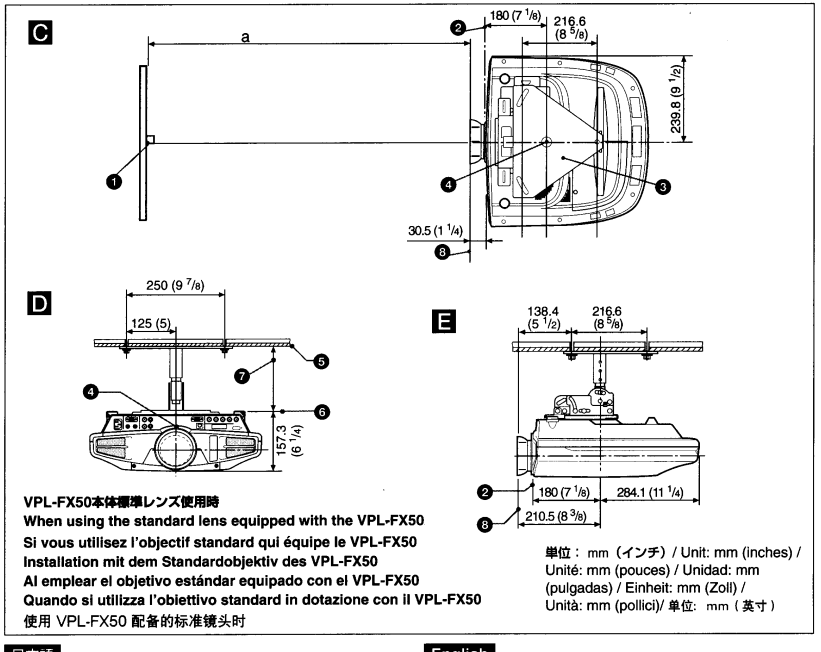
表および計算式のアルファベットは以下の意味を示します。
SS：スクリーンサイズ対角（インチ）
a ：レンズの中心からスクリーンまでの距離
b ：天井からレンズの中心までの距離
c ：PSS-620使用時、183/208/233/283/308/335 mmで調整可能
x ：天井からスクリーンの中心までの距離
N：最小値
M：最大値

English

Ceiling Installation

The installation measurements and their calculation method for each lens are shown above.

The alphabetical letters in the charts and calculation methods indicate the following.
SS : screen size measured diagonally (inches)
a : distance between the screen and the center of the lens
b : distance between the ceiling and the center of the lens
c : 183/208/233/283/308/335 mm (7 1/4, 8 1/4, 9 1/4, 11 1/4, 12 1/4, 13 1/8 inches) adjustable when using PSS-620
x : distance between the ceiling and the center of the screen
N : minimum
M : maximum



VPL-FX50本体標準レンズ使用時
When using the standard lens equipped with the VPL-FX50
Si vous utilisez l'objectif standard qui équipe le VPL-FX50
Installation mit dem Standardobjektiv des VPL-FX50
Al emplear el objetivo estándar equipado con el VPL-FX50
Quando si utilizza l'obiettivo standard in dotazione con il VPL-FX50
使用 VPL-FX50 配备的标准镜头时

単位： mm（インチ）/ Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici)/ 单位: mm（英寸）

日本語

プロジェクターサスペンション サポートPSS-620の取り付けかた

天井への設置に関して詳しくは、PSS-620の取付説明書をご覧ください。ここでは、本機をPSS-620を使って天井に取り付けた場合の寸法について説明します。

上から見た図 C
プロジェクターのレンズの中心とスクリーンの中心が合うように設置してください。

前から見た図 D

横から見た図 E
a：レンズの中心からスクリーンまでの距離
❶ スクリーン中心
❷ キャビネット前面
❸ 天井用マウントブラケット
❹ 本体・レンズ・支柱の中心
❺ 天井
❻ プロジェクターマウントブラケット取り付け面
❼ 天井からプロジェクターマウントブラケット取り付け面までの距離
アジャストメントパイプ(b)を使った場合：183/208/233 mm
アジャストメントパイプ(c)を使った場合：283/308/333 mm
❽ レンズ中心

English

Attaching the projector suspension support PSS-620

For more details on the ceiling installation, refer to the Installation manual for Dealers of the PSS-620. The installation measurements are shown above when you install the projector on the ceiling.

Top view C
Align the center of the lens with the center of the screen.

Front view D

Side view E
a : distance between the screen and the center of the lens
❶ Center of the screen
❷ Front of the cabinet
❸ Upper ceiling mount bracket
❹ Center of the unit, lens, and supporting pole
❺ Ceiling
❻ The bottom surface of the mounting bracket
❼ Distance between the ceiling and the surface of the mounting bracket
Using adjustment pipe (b): 183/208/233 mm (7 1/4/8 1/4/ 9 1/4 inches)
Using adjustment pipe (c): 283/308/333 mm (11 1/4 / 12 1/4 /13 1/8 inches)
❽ Center of the lens

日本語

床置き、ツインスタック

スタックが可能なスクリーンサイズ

80インチから300インチのスクリーンがご使用になれます。

ご注意
安全にお使いになるため、またメンテナンスのために、設置する際は壁からの距離を左右後方各50 cm以上離して設置してください。

スタックをする際のご注意
2台のプロジェクターの画像を正しく重ね合わせるためにレンズのズームが可変範囲の中心になるように設置してください。
1 スタックの設置例のa値に従ってプロジェクターを設置する。
2 ズームを使って上下のプロジェクターからの画像がスクリーンいっぱいに映るように画像サイズを調整する。

English

Floor installation for twin stacking

Available screen size for stacking

80 to 300-inches screens are available for twin stack installation.

Note
For safety and maintenance purposes, install the projectors away from the wall. Leave a minimum space of 50 cm (19 3/4 inches) from both sides and the rear.

Note on stacking
To properly align the pictures from both projectors, set the zoom to the center of the adjustment range.
1 Install the projector following the "a" value in the stacking example.
2 Use the zoom to align the pictures from the first and second projectors so that they fill the screen.

Français

Installation au sol en double empilage

Format d'écran disponible pour la superposition

Des écrans de 80 à 300 pouces sont disponibles pour une installation en double superposition.

Remarque
Pour des raisons de sécurité et d'entretien, installez les projecteurs à l'écart du mur. Laissez un espace de 50 cm (19 3/4 pouces) au minimum sur les côtés et à l'arrière de l'appareil.

Remarque sur la superposition
Pour aligner correctement l'image des deux projecteurs, réglez le zoom au centre de la plage de réglage.
1 Installez le projecteur conformément à la valeur "a" de l'exemple de superposition.
2 Utilisez le zoom pour aligner les images du premier et du second projecteur de façon à ce qu'elles remplissent l'écran.

Español

Instalación en el suelo para apilamiento doble

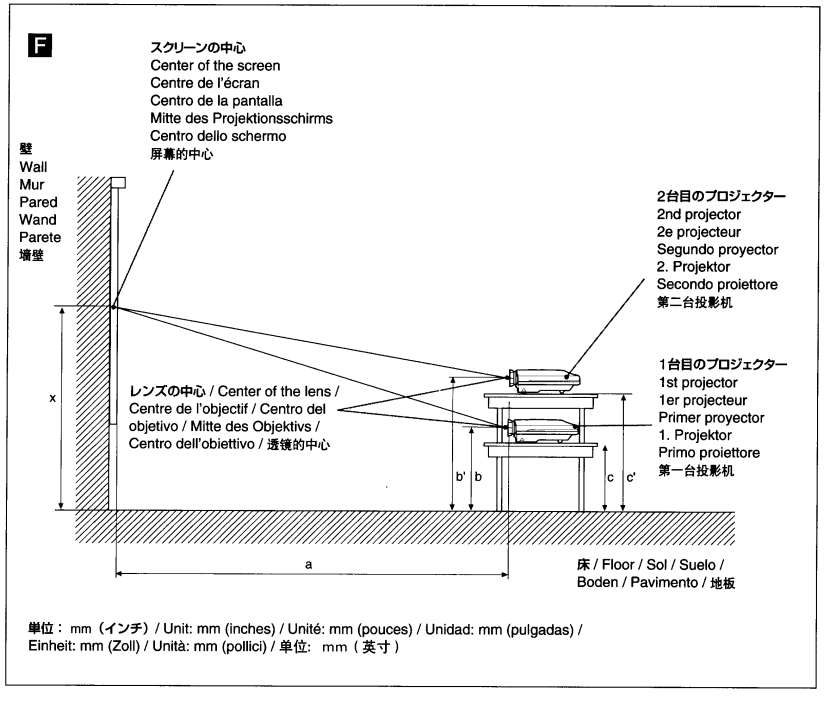
Tamaño de pantalla disponible para apilamiento

Hay disponibles pantallas de 80 a 300 pulgadas para apilamientos de dos proyectores.

Nota
Por motivos de seguridad y mantenimiento, instale los proyectores separados de la pared. Deje un espacio mínimo de 50 cm (19 3/4 pulgadas) a ambos lados y en la parte trasera.

Nota sobre el apilamiento
Para alinear correctamente las imágenes de ambos proyectores, coloque el zoom en la posición central de la gama de ajustes.
1 Instale el proyector según el valor "a" indicado en el ejemplo.
2 Utilice el zoom para alinear las imágenes de ambos proyectores de forma que cubran completamente la pantalla.

http://getMANUAL.com



単位： mm（インチ）/ Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici) / 単位: mm（英寸）

日本語

床置き、ツインスタック

プロジェクターを机などの上でツインスタックにして設置する場合の設置例を示します。F

イラスト中のアルファベットは、以下の距離を示します。
a：レンズの中心からスクリーンまでの距離
b：床から1台目のプロジェクターのレンズ中心までの距離
b'：床から2台目のプロジェクターのレンズ中心までの距離
c：床から1台目のプロジェクターの脚までの距離
c'：床から2台目のプロジェクターの脚までの距離
x：任意

English

Floor installation for twin-stacking

This section describes the examples for installing two projectors on the desk using twin-stacking. F

The alphabetical letters in the illustration indicate the distances below.
a: distance between the screen and the center of the lens
b: distance between the floor and the center of the lens of the 1st projector
b': distance between the floor and the center of the lens of the 2nd projector
c: distance between the floor and the adjusters of the 1st projector
c': distance between the floor and the adjusters of the 2st projector
x: free

単位：mm（インチ）/ Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici) / 単位: mm（英寸）

■ 標準レンズ / Standard lens / Objectif standard / Objetivo estándar / Standardobjektiv / Uso Obiettivo standard / 标准透镜

SS		80	100	120	150	180	200	250	300
a		3720 (146 1/2)	4670 (184)	5610 (221)	7020 (276 7/16)	8440 (332 3/8)	9380 (369 3/8)	11740 (462 3/8)	14090 (554 7/8)
b	N	x-610 (x-24 1/8)	x-762 (x-30)	x-914 (x-36)	x-1143 (x-45)	x-1372 (x-54 1/8)	x-1524 (x-60)	x-1905 (x-75 1/8)	x-2286 (x-90 1/8)
	M	x-212 (x-8 3/8)							
b'		b+212 (b+8 3/8)							
c		(b-x) / SS × 1.3102+b-100 ((b-x) / SS × 1.3102+b-4)							
c'		(b'-x) / SS × 1.3102+b'-100 ((b'-x) / SS × 1.3102+b'-4)							

a =(SS ×61.770/1.3102) – 48.8
b (N)= x – (SS/1.3102 × 9.984)

■VPLL-ZM101

SS		80	100	120	150	180	200	250	300
a		6650 (261 7/8)	8360 (329 1/4)	10080 (397)	12640 (497 3/4)	15210 (599)	16920 (666 1/4)	21200 (834 3/4)	25470 (1003)
b	N	x-610 (24 1/8)	x-762 (30)	x-914 (36)	x-1143 (45)	x-1372 (54 1/8)	x-1524 (60)	x-1905 (75 1/8)	x-2286 (90 1/8)
	M	x-212 (x-8 3/8)							
b'		b+212 (b+8 3/8)							
c		(b-x) / SS × 1.3102+b-100 ((b-x) / SS × 1.3102+b-4)							
c'		(b'-x) / SS × 1.3102+b'-100 ((b'-x) / SS × 1.3102+b'-4)							

a = (SS ×112.072/1.3102) – 188.7
b(N) = x – (SS/1.3102 × 9.984)

■VPLL-ZM31

SS		80	100	120	150	180	200	250	300
a		2620 (103 1/4)	3300 (130)	3980 (156 3/4)	5000 (196 7/8)	6030 (237 7/16)	6710 (264 1/4)	8410 (331 1/4)	10120 (398 1/2)
b	N	x-610 (24 1/8)	x-762 (30)	x-914 (36)	x-1143 (45)	x-1372 (54 1/8)	x-1524 (60)	x-1905 (75 1/8)	x-2286 (90 1/8)
	M	x-212 (x-8 3/8)							
b'		b+212 (b+8 3/8)							
c		(b-x) / SS × 1.3102+b-100 ((b-x) / SS × 1.3102+b-4)							
c'		(b'-x) / SS × 1.3102+b'-100 ((b'-x) / SS × 1.3102+b'-4)							

a = (SS × 44.676/1.3102) – 110.2
b (N) = x – (SS/1.3102 × 9.984)

日本語

床置き、ツインスタック

各レンズの設置寸法と計算方法を上記に示します。

表および計算式のアルファベットは以下の意味を示します。
SS：スクリーンサイズ対角（インチ）
a ：レンズの中心からスクリーンまでの距離
b：床から1台目のプロジェクターのレンズ中心までの距離
b'：床から2台目のプロジェクターのレンズ中心までの距離
c：床から1台目のプロジェクターの脚までの距離
c'：床から2台目のプロジェクターの脚までの距離
x：任意
N：最小値
M：最大値

English

Floor installation for twin-stacking

The installation measurements and their calculation method for each lens are shown on the left page.

The alphabetical letters in the charts and calculation methods indicate the following.
SS: screen size measured diagonally (inches)
a : distance between the screen and the center of the lens
b : distance between the floor and the center of the lens of the 1st projector
b' : distance between the floor and the center of the lens of the 2nd projector
c : distance between the floor and the adjusters of the 1st projector
c' : distance between the floor and the adjusters of the 2st projector
x : free
N : minimum
M : maximum

Français

Installation au sol en double empilage

Les mesures de l'installation et leur méthode de calcul pour chaque objectif sont indiquées sur la page de gauche.

Les caractères alphabétiques dans l'illustration et leurs méthodes de calcul indiquent ce qui suit.
SS: dimension de l'écran en diagonale (pouces)
a : distance entre l'écran et le centre de l'objectif
b : distance entre le sol et le centre de l'objectif du premier projecteur
b' : distance entre le sol et le centre de l'objectif du second projecteur
c : distance entre le sol et les pieds réglables du premier projecteur
c' : distance entre le sol et les pieds réglables du second projecteur
x : libre
N : minimum
M : maximum

Español

Instalación en el suelo para apilamiento doble

Las medidas de instalación y su método de cálculo para cada objetivo se muestran en la página izquierda.

Las letras alfabéticas de las tablas y los métodos de cálculo indican lo siguiente.
SS : tamaño de pantalla medida diagonalmente (pulgadas)
a : distancia de la pantalla al centro del objetivo
b : distancia entre el suelo y el centro del objetivo del 1er proyector
b' : distancia entre el suelo y el centro del objetivo del 2º proyector
c : distancia entre el suelo y los ajustadores del 1er proyector
c' : distancia entre el suelo y los ajustadores del 2º proyector
x : libre
N : mínimo
M : máximo

Deutsch

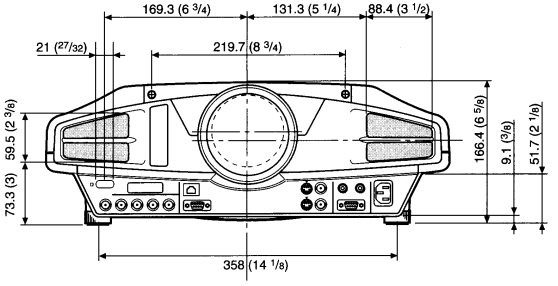
Installation am Boden für die Doppelprojektion

Die Installationsabmessungen und das jeweilige Berechnungsverfahren für die einzelnen Objektive sind links angegeben.

Die Buchstaben in den Tabellen und den Berechnungsverfahren haben folgende Bedeutung:
SS : Projektionsschirmgröße in Zoll, diagonal gemessen
a : Abstand zwischen dem Projektionsschirm und der Mitte des Objektivs
b : Abstand zwischen dem Boden und der Objektivmitte des ersten Projektors
b' : Abstand zwischen dem Boden und der Objektivmitte des zweiten Projektors
c : Abstand zwischen dem Boden und den Ausgleichsfüßen des ersten Projektors
c' : Abstand zwischen dem Boden und den Ausgleichsfüßen des zweiten Projektors
x : frei
N : Mindestens
M : Höchstens

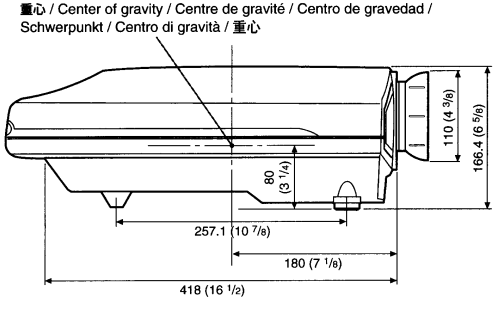
寸法図 / Dimensions / Dimensions / Dimensiones / Abmessungen / Dimensioni / 尺寸

前面 / Front / Avant / Parte frontal / Vorderseite / Vista anteriore / 前視



本体中心
Center of the projector
Centre de l'appareil
Centro de la unidad
Mitte des Geräts
Centro dell'apparecchio
投影机的中心

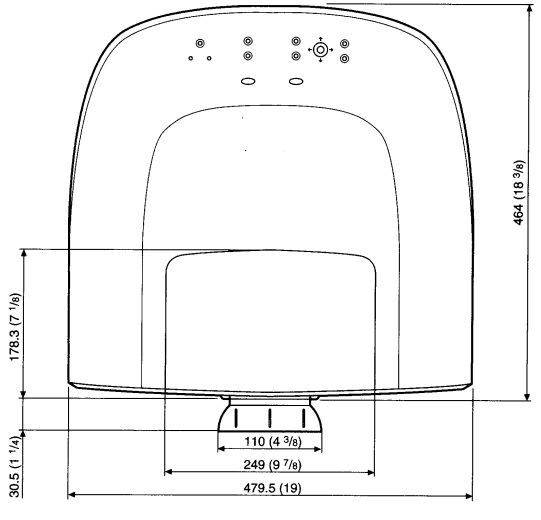
側面 / Side / Côté / Parte lateral / Seitenansicht / Vista laterale / 側視


重心 / Center of gravity / Centre de gravité / Centro de gravedad / Schwerpunkt / Centro di gravità / 重心
110 (4 3/8)
166.4 (6 5/8)
80 (3 1/4)
257.1 (10 7/8)
180 (7 1/8)
418 (16 1/2)

単位： mm（インチ）/ Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici) / 单位: mm（英寸）

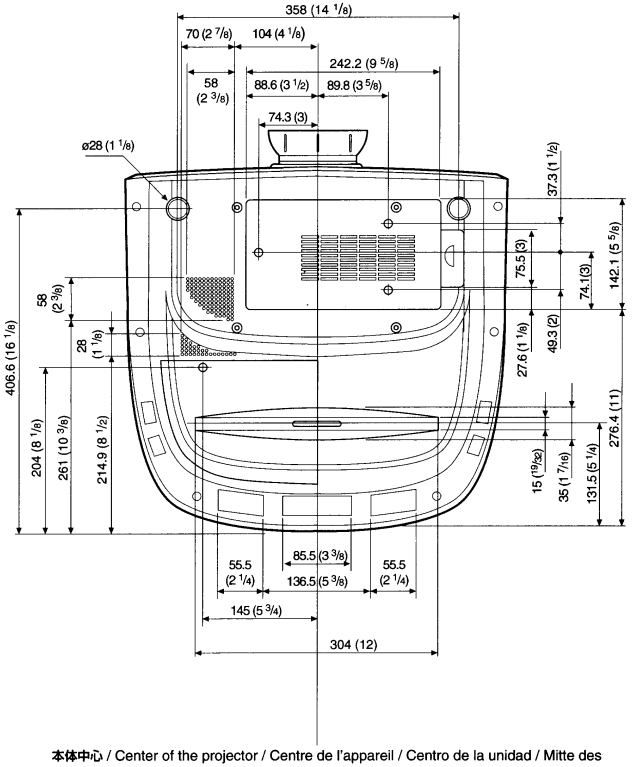
寸法図 / Dimensions / Dimensions / Dimensiones / Abmessungen / Dimensioni / 尺寸

上面 / Top / Dessus / Parte superior / Draufsicht / Vista dall'alto / 俯视



単位： mm（インチ）/ Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici) / 単位: mm（英寸）

底面 / Bottom / Dessous / Parte inferior / Unterseite / Vista dal basso / 底面

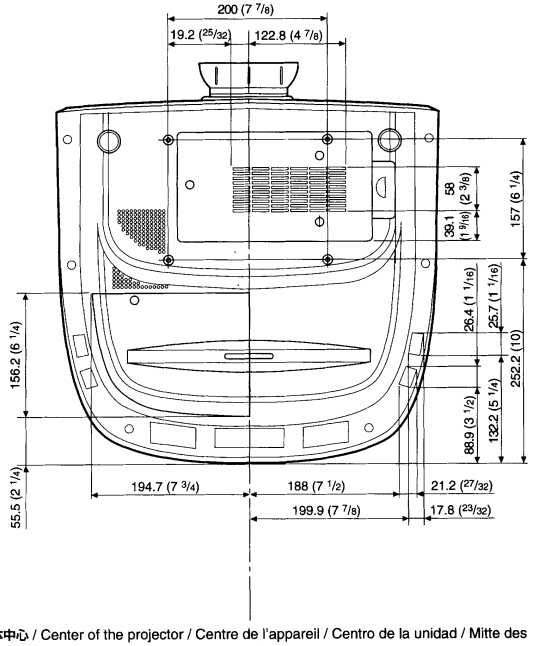


本体中心 / Center of the projector / Centre de l'appareil / Centro de la unidad / Mitte des Geräts / Centro dell'apparecchio / 投影机的中心

単位： mm（インチ）/ Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici) / 単位: mm（英寸）

寸法図 / Dimensions / Dimensions / Dimensiones / Abmessungen / Dimensioni / 尺寸

底面 / Bottom / Dessous / Parte inferior / Unterseite / Vista dal basso / 底面



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単位： mm（インチ） / Unit: mm (inches) / Unité: mm (pouces) / Unidad: mm (pulgadas) / Einheit: mm (Zoll) / Unità: mm (pollici) / 单位: mm（英寸）

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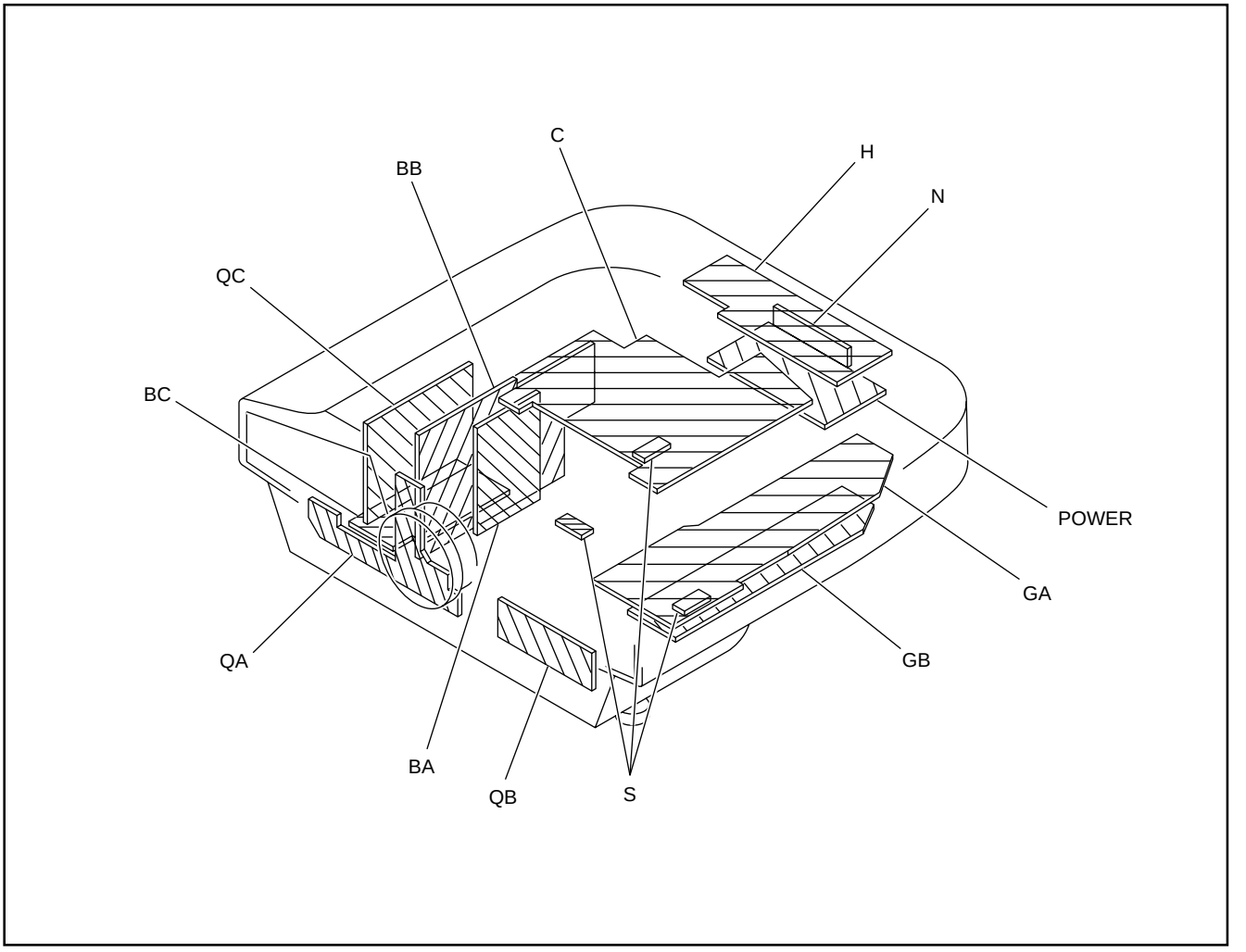
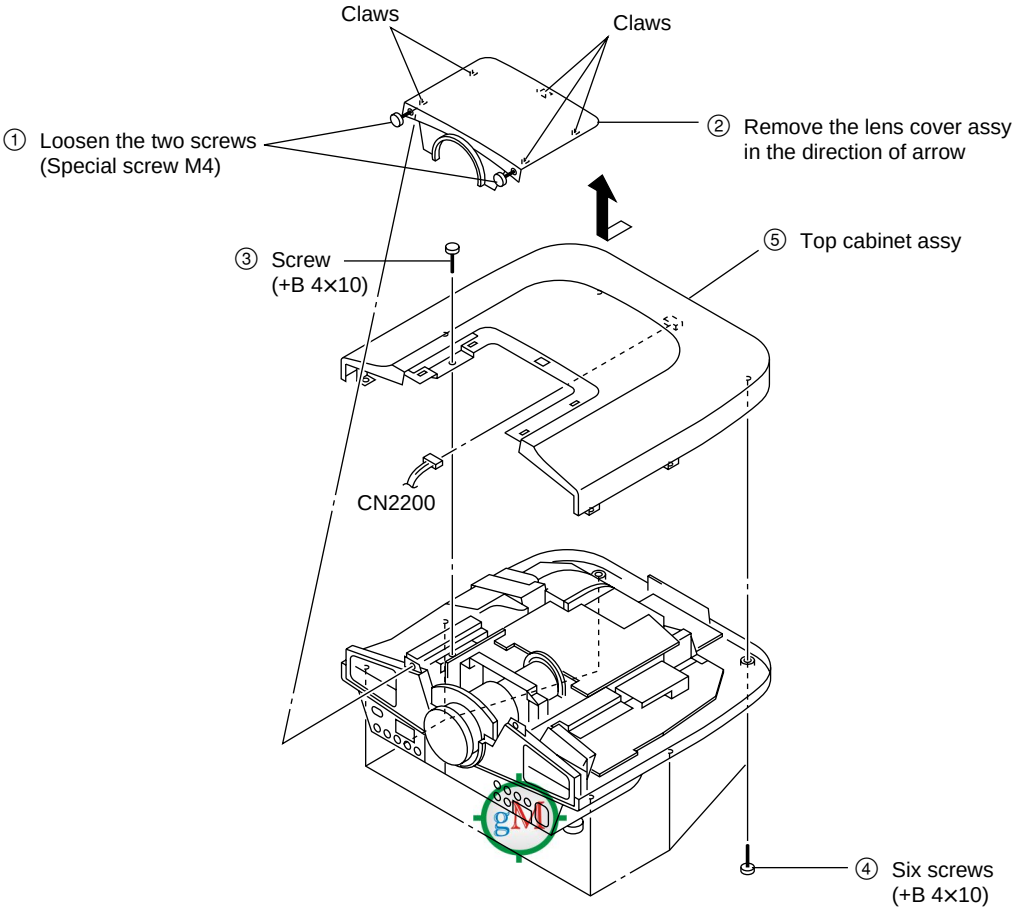
Section 2
Service Information

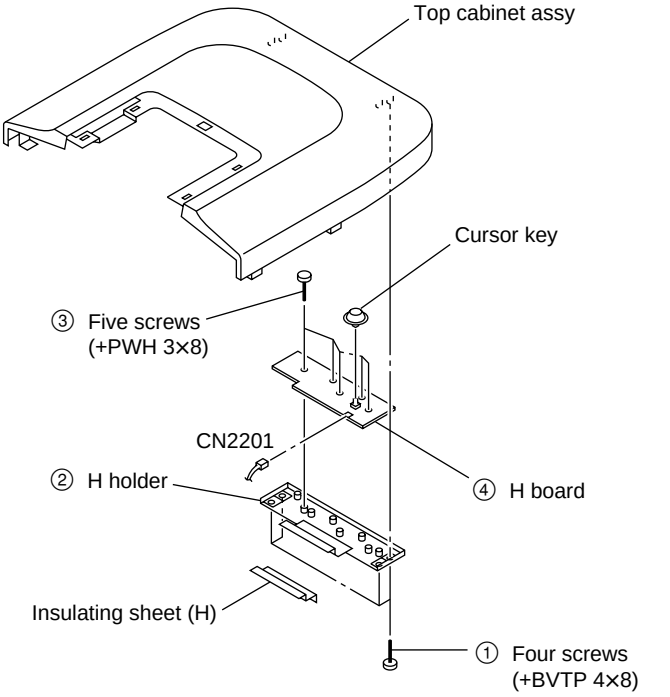
2-1. Circuit Boards Location



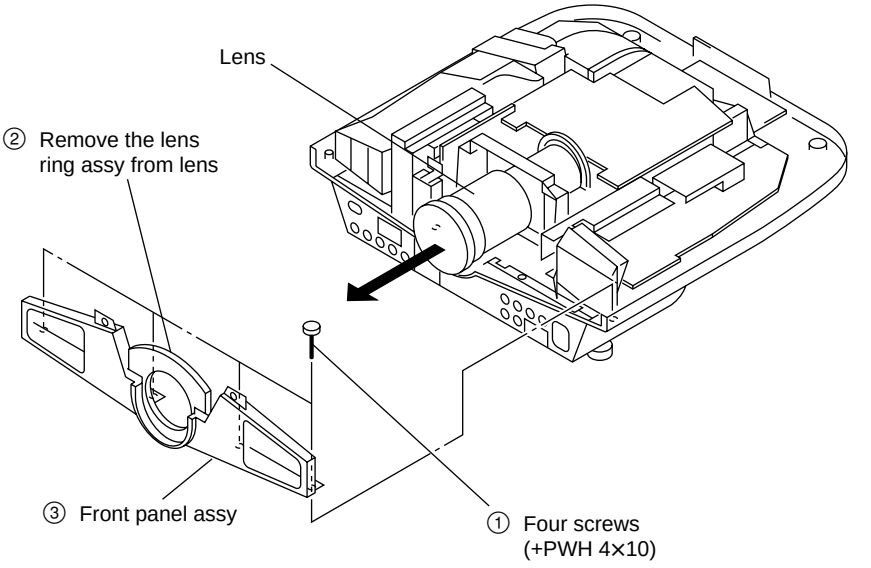
2-2. Top Cabinet Assy Removal



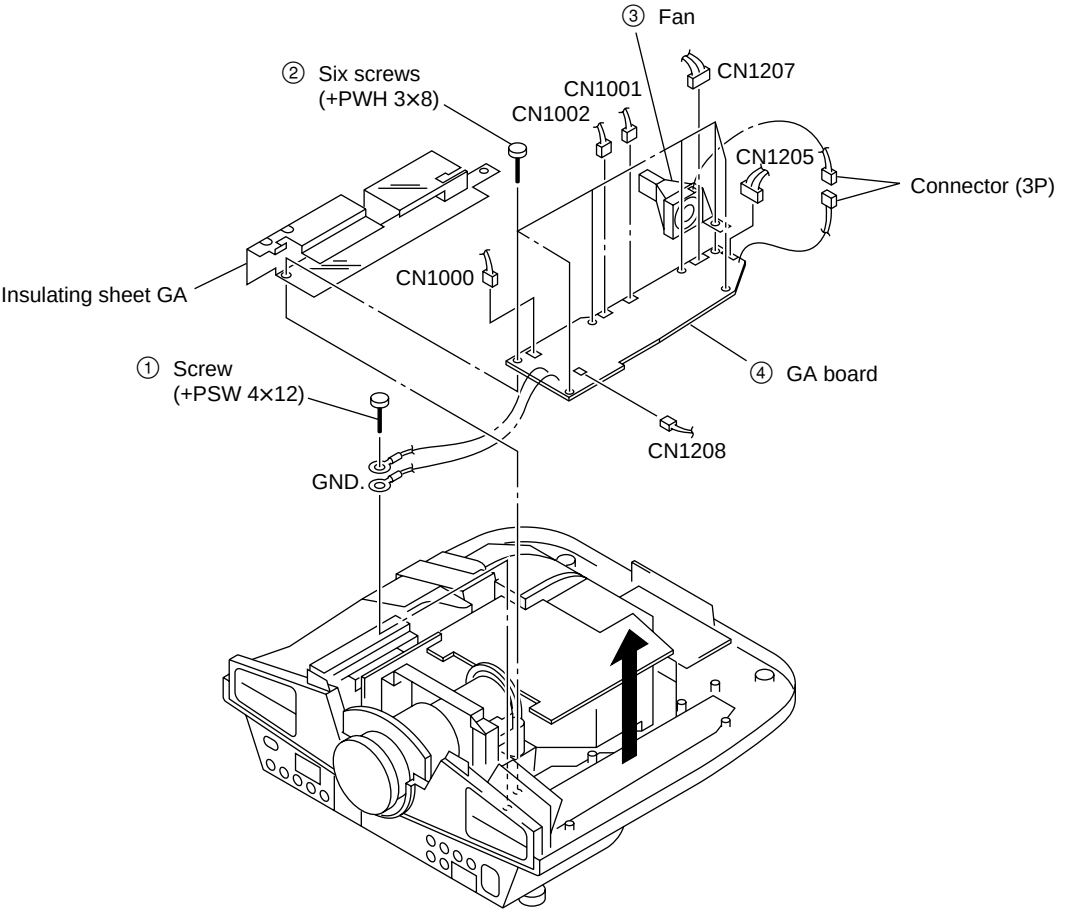
2-3. H Board Removal



2-4. Front Panel Assy Removal

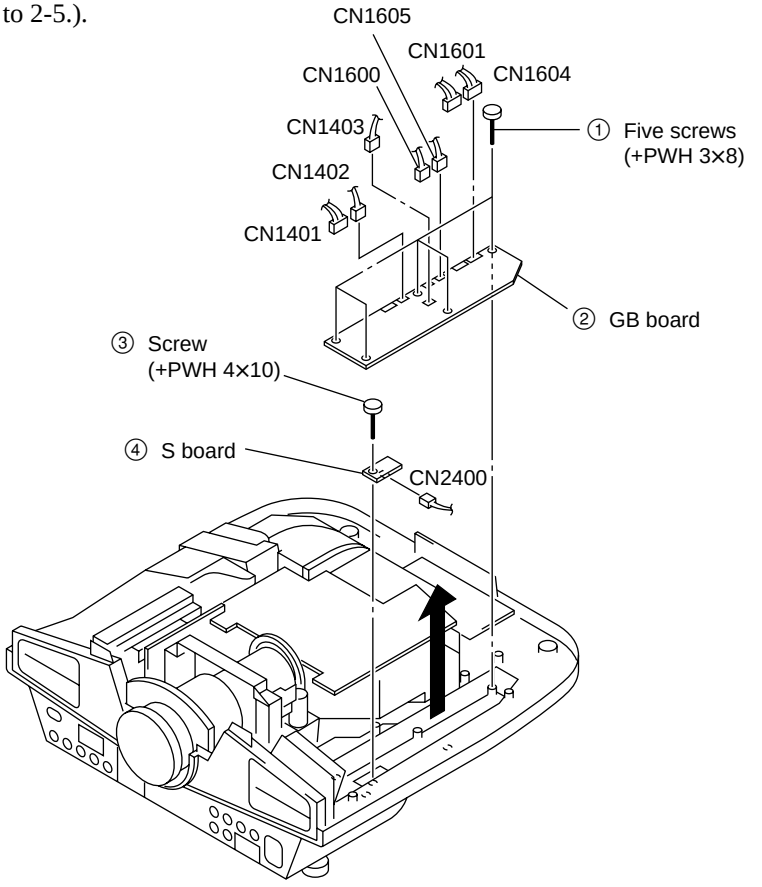


2-5. GA Board Removal

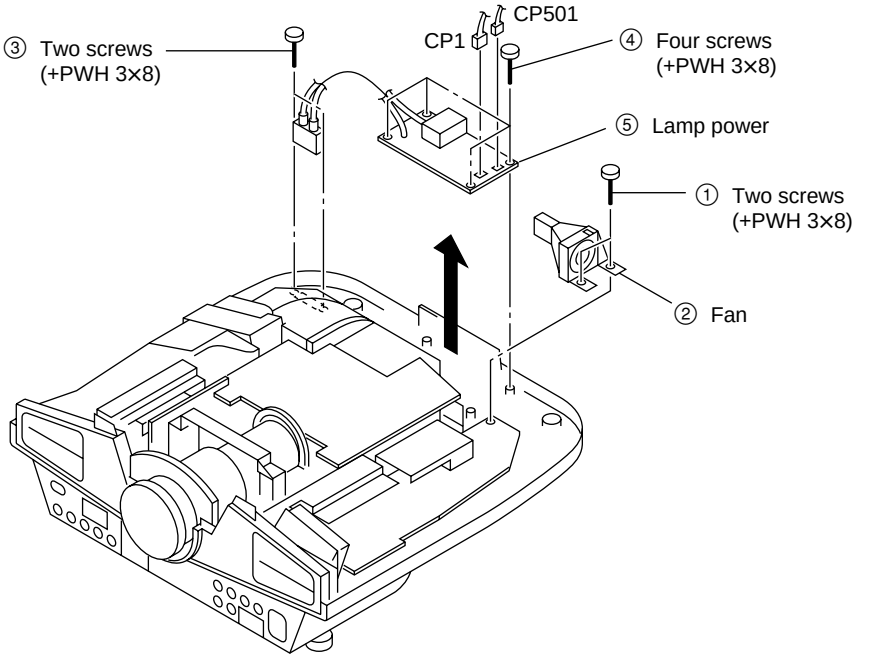


2-6. GB and S Boards Removal

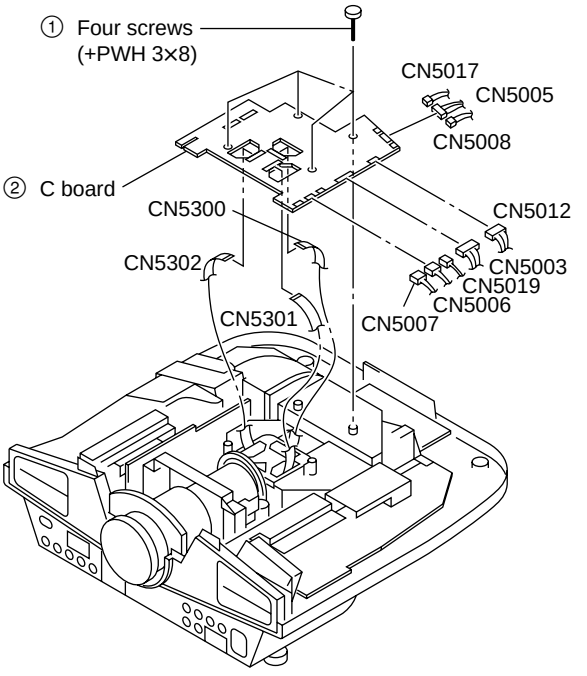
• Remove the GA board (Refer to 2-5.).



2-7. Lamp Power Removal

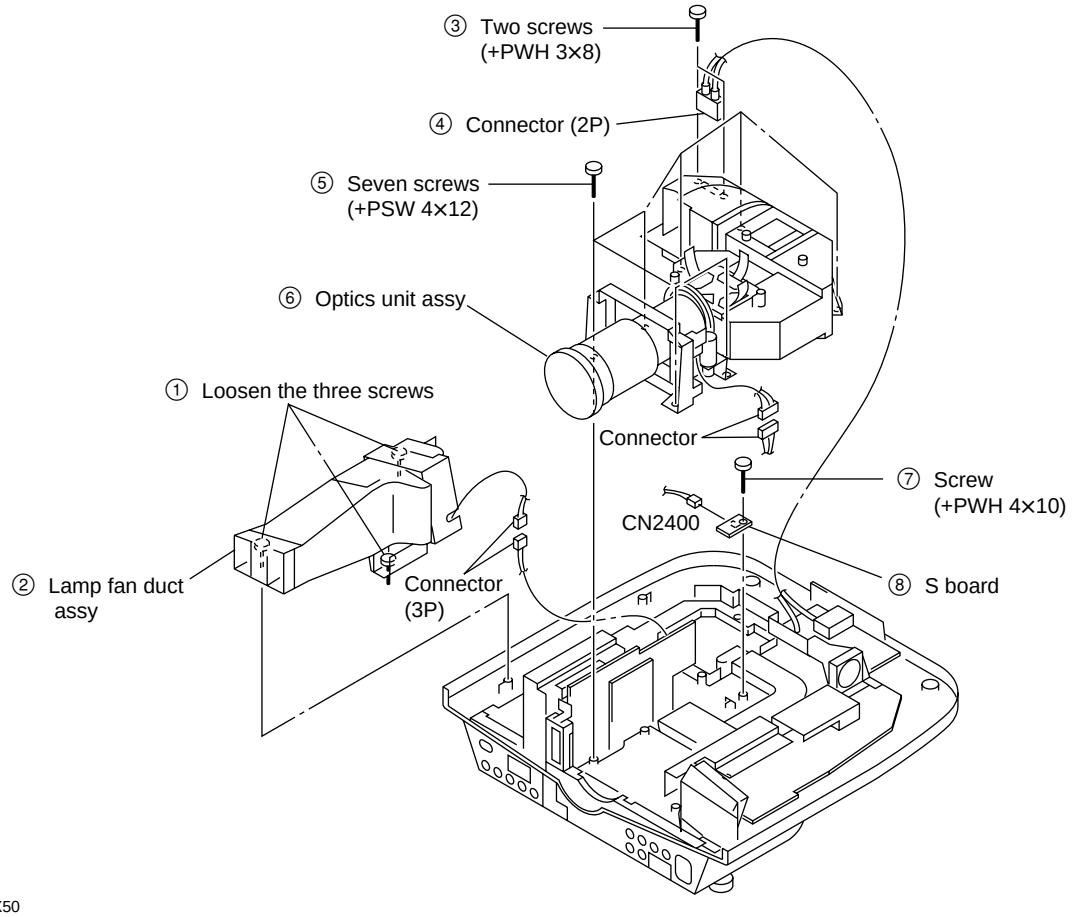


2-8. C Board Removal

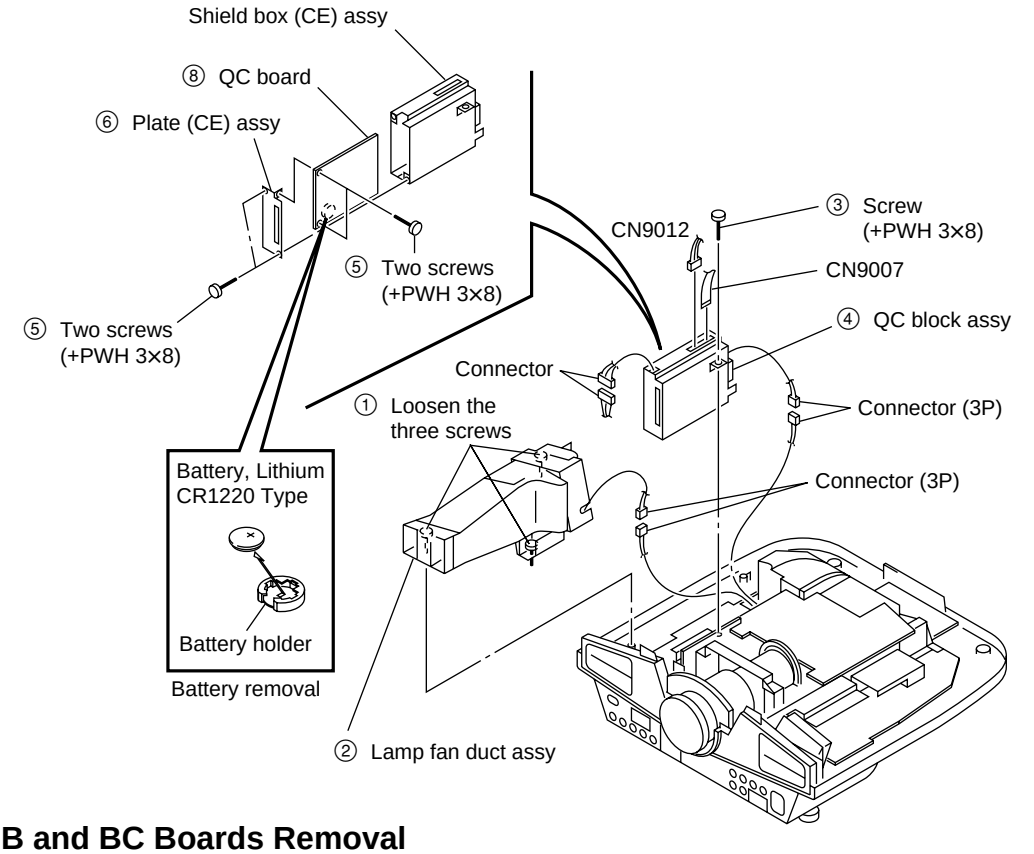


2-9. Optics Unit Assy and S Board Removal

- Remove the front panel assy (Refer to 2-4.).
- Remove the C board (Refer to 2-8.).

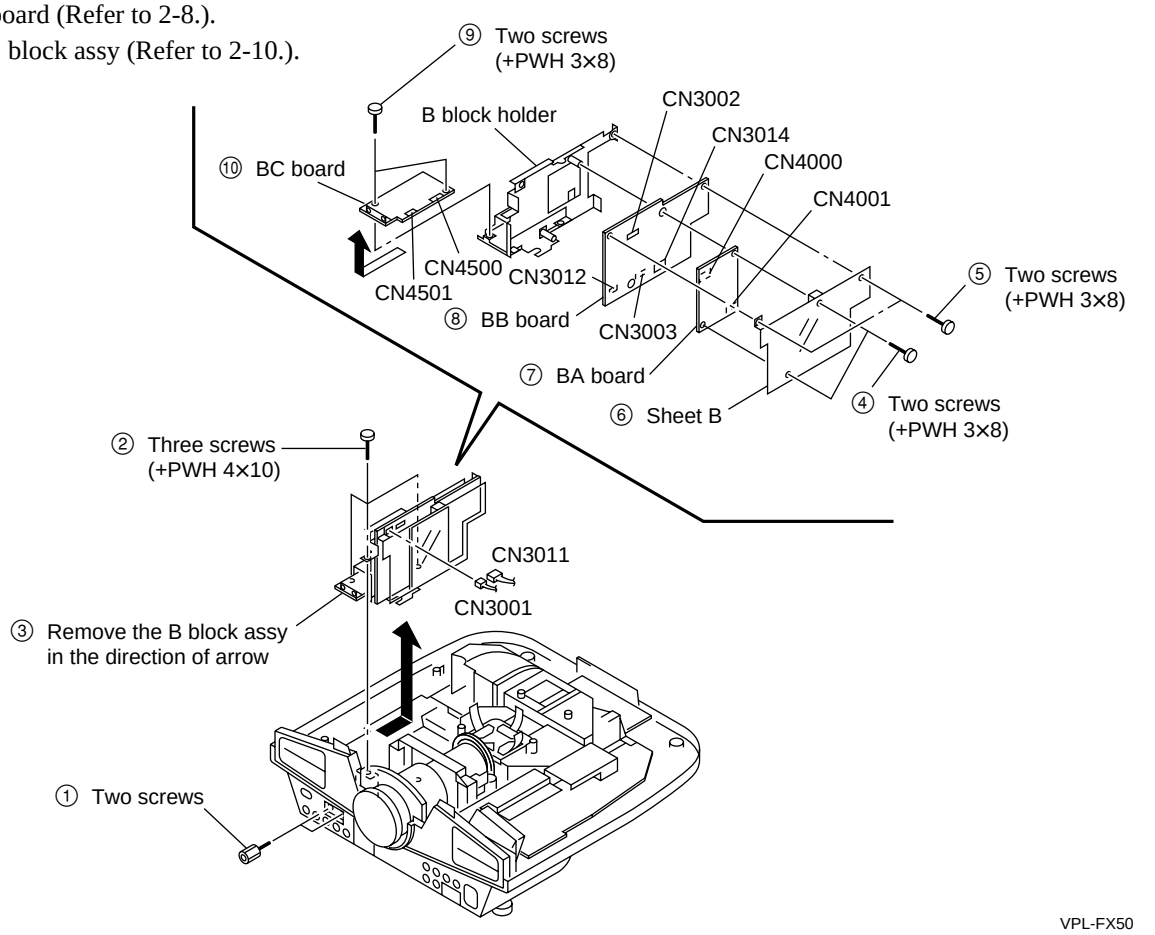


2-10. QC Board Removal



2-11. BA, BB and BC Boards Removal

- Remove the C board (Refer to 2-8.).
- Remove the QC block assy (Refer to 2-10.).



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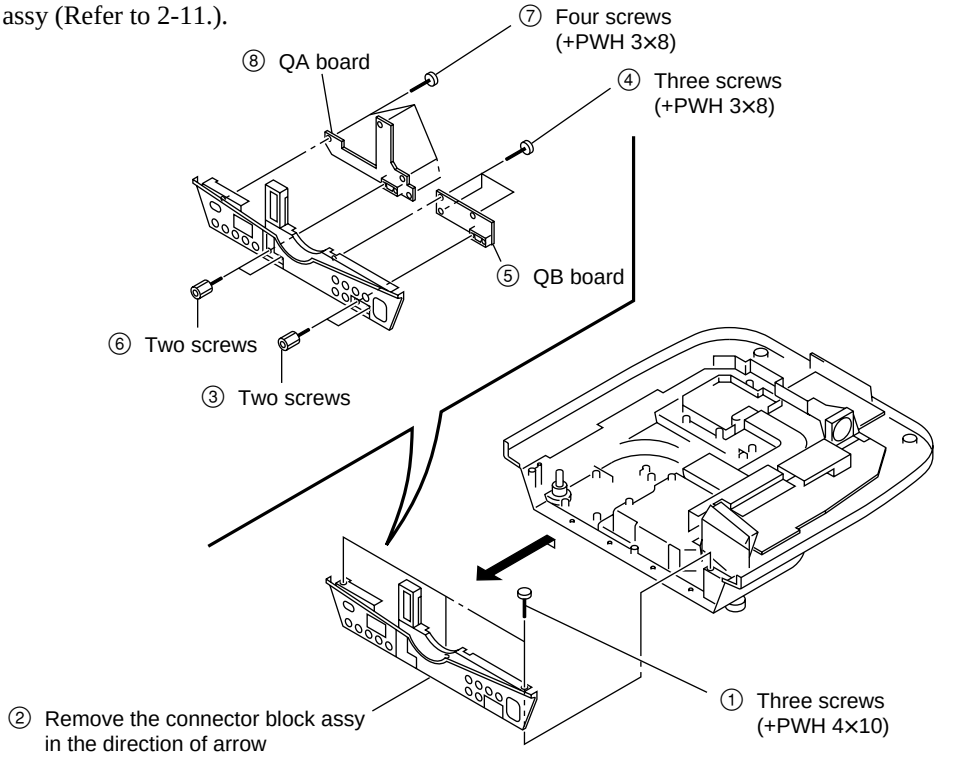
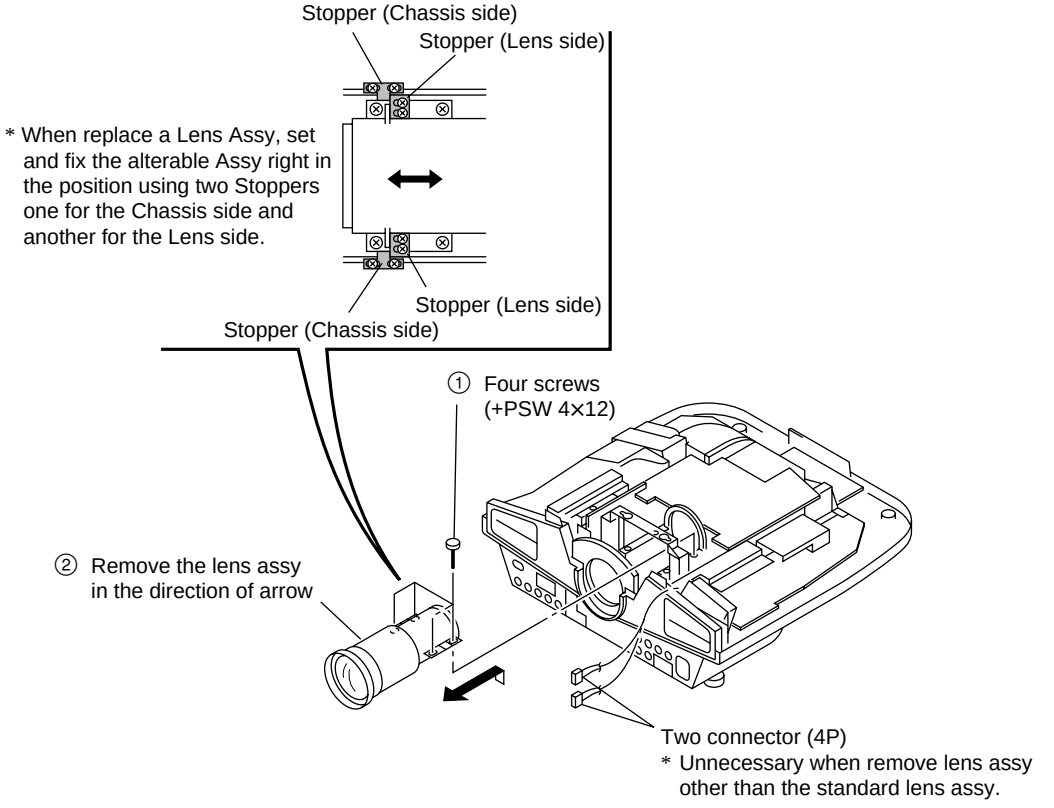
2-12. QA and QB Boards Removal

- Remove the optics unit assy (Refer to 2-9.).
- Remove the B block assy (Refer to 2-11.).

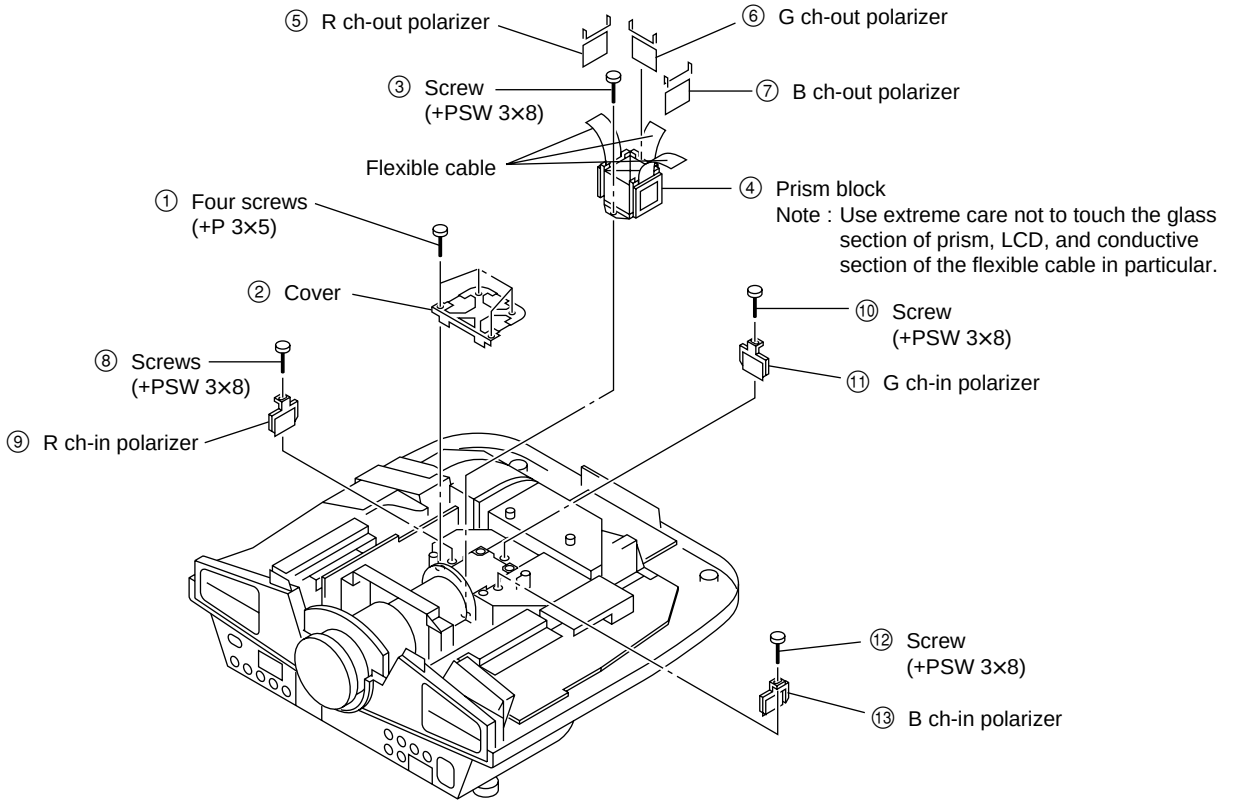


2-13. Lens Assy Removal

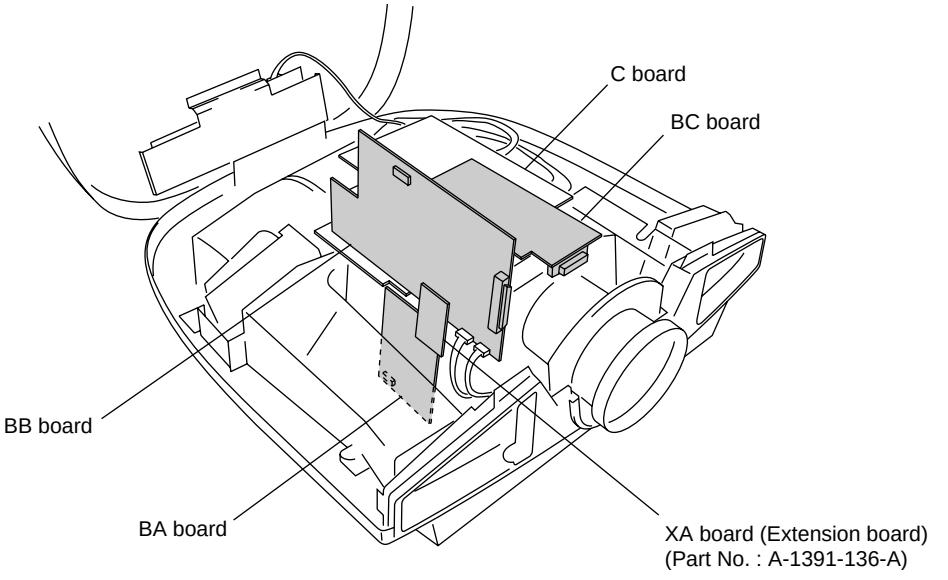

Stopper (Chassis side)
Stopper (Lens side)
* When replace a Lens Assy, set
and fix the alterable Assy right in
the position using two Stoppers
one for the Chassis side and
another for the Lens side.
Stopper (Lens side)
Stopper (Chassis side)
① Four screws
(+PSW 4×12)
② Remove the lens assy
in the direction of arrow
Two connector (4P)
* Unnecessary when remove lens assy
other than the standard lens assy.

2-14. Prism Block and Polarizer Removal

• Remove the C board (Refer to 2-8.).


⑤ R ch-out polarizer
⑥ G ch-out polarizer
③ Screw (+PSW 3×8)
⑦ B ch-out polarizer
Flexible cable
④ Prism block
Note : Use extreme care not to touch the glass section of prism, LCD, and conductive section of the flexible cable in particular.
① Four screws (+P 3×5)
② Cover
⑩ Screw (+PSW 3×8)
⑧ Screws (+PSW 3×8)
⑪ G ch-in polarizer
⑨ R ch-in polarizer
⑫ Screw (+PSW 3×8)
⑬ B ch-in polarizer

2-15. Extension Board Connection



2-16. Power Cord

Use a proper power cord for your local power supply.

	The United States, Canada		Continental Europe		UK, Ireland, Australia, New Zealand	Japan
Plug type	VM0233	290B	YP-12A	COX-07	—[1)]	YP332
Female end	VM0089	386A	YC-13B	COX-02	VM0310B	YC-13
Cord type	SJT	SJT	H05VV-F	H05VV-F	N13237/CO-228	VCTF
Rated Voltage & Current	10A/125V	10A/125V	10A/250V	10A/250V	10A/250V	7A/125V
Safety approval	UL/CSA	UL/CSA	VDE	VDE	VDE	DENTORI

1) Use a plug conforming to the international standards and appropriate to your local power supply.

Section 3
Electrical Adjustments

3-1. Preparations

3-1-1. Equipment Requitred

- Oscilloscope
  Tektronix 2465 or equivalent
  (bandwidth: 350 MHz or more)
- NTSC, PAL, SECAM component signal generator
  Tektronix TG2000 + AVG1 (optionalmodule)
  +AWVG1 (optionalmodule) or equivalent
- VG (Programmable video signal generator)
  VG814 or equivalent
- Digital voltmeter
  Advantest TR6845 or equivalent
- Luminance meter

Note: Perform the following adjustments at least 5 minutes after turning on the power.

3-1-2. Setting the Factory Mode

1. Check that the STATUS is ON in MENU.
2. Exit MENU.
3. Press the keys in the following order;
   "ENTER" → "ENTER" → "LEFT" → "ENTER".
4. The message "Do you wish to enter into the FACTORY MODE?" will be displayed.
5. Select YES.

3-2. Adjust R, G, B, VCOM

1. Enter the P.DRV of the Device Adjust in the Factory mode.
2. Entering the item 04 VCOM R, check 1 line ON/OFF signal.
3. Set the fixture and Luminance meter to the Lens first and connect the Oscilloscope. Observing output from the Luminance meter through the Oscilloscope (AC mode), adjust the waveform using the key → or ←, to minimize flickers. (Neglect intermittent very small distortion)
4. Adjust VCOM G and VCOM B in the same manner.
5. Save the data by selecting the item " SAVE TO MEMORY " in the page of Device Adjust of the Adjustments menu and by pressing ENTER.

3-3. Adjust SIGNAL CENTER

1. Input 100 IRE FLAT FIELD signal to INPUT- A.
2. Connect the Oscilloscope to the TP5305 of the C board.
3. Enter the item 09 SIGCEN of P.DRV. Adjust the white level so that ODD line and EVEN line may become symmetrical against 7.5V.
4. Save the data by selecting the item " SAVE TO MEMORY " in the page of Device Adjust of the Adjustments menu and by pressing ENTER.

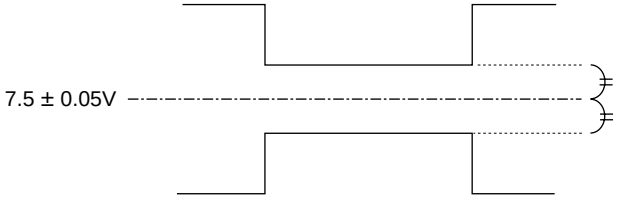
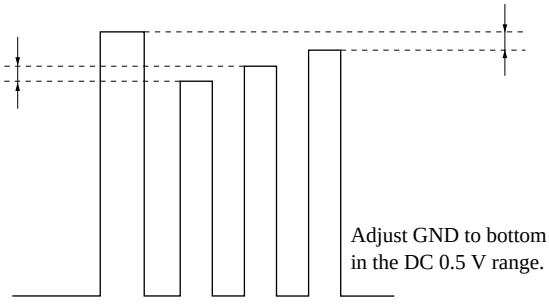


Fig. 3-3

3-4. Adjust Signal Level

3-4-1. Component Level Adjustments

1. Input the Component signal to the INPUT-A. Then, from INPUT-A of the SET SETTING, select the COMPONENT (15K Component color bar chroma ON).
2. Set the COLOR to 50.
3. Connect the Oscilloscope to the TP5305 (B OUT) of the C board .
4. Enter the item OTHER of Device Adjust of the menu.
5. Set 06 3D GAMMA/ THROUGH : 0 to 06 3D GAMMA/ THROUGH : 1.
6. Set 07 3D GAMMA/ SW : 1 to 07 3D GAMMA/ SW : 0.
7. Advance the item RGB-MTRX of Device Adjust of the menu.
8. Select the item 08 YUV COL. Use the key ← or →, or both, to adjust level of two color bars, the left and right end so that they will come to the same level.
9. Select 09 SUB HUE, then adjust the level of centrally adjoining two color bars in the midst of all bars, using the key ← or →, or both so that they can be made flat.
10. Press ENTER key and select " SAVE TO MEMORY ". For saving the data, press the ENTER again.

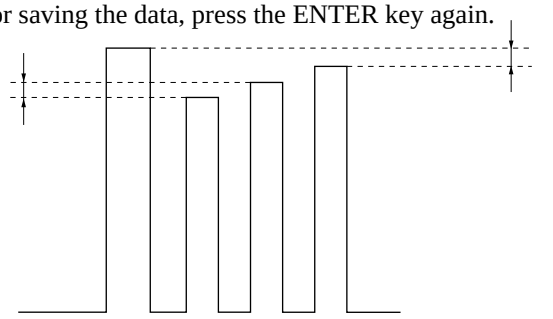


(15K Component color bar/Chroma ON)

Fig. 3-4-1

3-4-2. Adjust X2 Component Level

1. Set the COLOR to 50.
2. Connect the Oscilloscope to the TP5305 of the C board.
3. Input the Color bar signal 1080/60i 100% to the INPUT-A. Select the DTV-YPbPr from the INPUT-A of the SET SETTING.
4. Enter the item RGB MATRX of Device Adjust of the menu.
5. Select the item 08 YUV COL. Use the key ← or →, or both, to adjust the level of two color bars, the left and right end so that they will come to the same level.
6. Select 09 SUB HUE, then adjust the level of centrally adjoining two color bars in the midst of all bars, using the key ← or →, or both so that they can be made flat.
7. Press the ENTER key and select " SAVE TO MEMORY ".
8. For saving the data, press the ENTER key again.

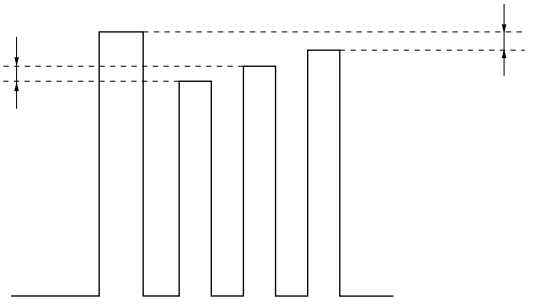


(1080/60i 100% Color bar)

Fig. 3-4-2

3-4-3. Adjust 15K RGB Level

1. Set the COLOR to 50.
2. Connect the Oscilloscope to the TP5305 of the C board.
3. Input the Color bar signal 15K RGB 100% to the INPUT-A (5BNC). Select COMPUTOR from the INPUT-A of the SET SETTING.
4. Enter the item RGB MATRX of Device Adjust of the menu.
5. Select the item 08 YUV COL. Use the key ← or →, or both, to adjust the level of two color bars, the left and right end so that they will come to the same level.
6. Select 09 SUB HUE, then adjust the level of centrally adjoining two color bars in the midst of all bars, using the key ← or →, so that they can be made flat.
7. Press the ENTER key and select " SAVE TO MEMORY ".
8. For saving the data, press the ENTER key again.



(15K RGB 100% Color bar)

Fig. 3-4-3

3-4-4. Adjust VIDEO NTSC Level

1. Set the COLOR to 50
2. Connect the Oscilloscope to the TP5305 of the C board.
3. Input the NTSC 100% Color bar signal to the VIDEO INPUT.
   Then, enter the item RGB MATRX of Device Adjust of the menu.
4. Select the item 08 YUV COL. Use the key ← or →, or both, to adjust the level of two color bars, the left and right end so that they will come to the same level.
5. Select the item 09 SUB HUE, then adjust the level of centrally adjoining two color bars in the midst of all bars, using the key ← or →, or both so that they can be made flat.
6. Press the ENTER key and select " SAVE TO MEMORY ". For saving the data, press the ENTER key again.
7. Perform alike for PAL system in the same manner. (Adjust the color using 40.)

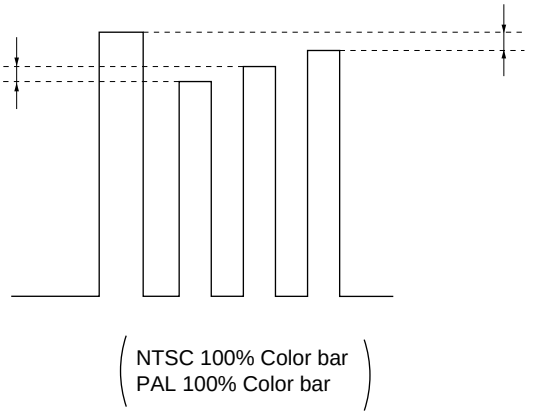


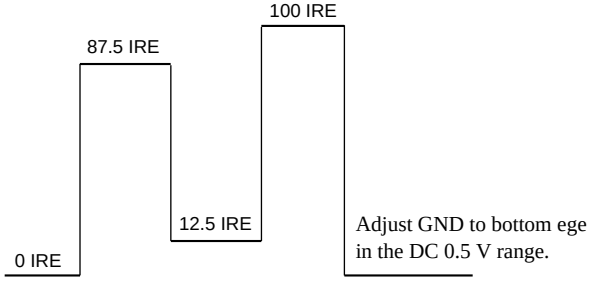
Fig. 3-4-4

3-5. Adjust W/B HIGH Mode

3-5-1. W/B HIGH Adjustments

1. Input signal (XGA) to the INPUT-A for use W/B HIGH Adjustments. Connect the Oscilloscope to the TP5310 of the C board. (Fig. 3-5-1-1)
2. Set CONTRAST to the MAX.
3. Enter the item OTHER of Device Adjust of the menu.
4. Set 06 3D GAMMA/ THROUGH : 0 to 06 3D GAMMA/ THROUGH : 1.
5. Set 07 3D GAMMA/ SW : 1 to 07 3D GAMMA/ SW : 0.
6. Enter the item PDRV of Device Adjust of the menu.
7. Adjust the level of the part 0IRE, the bottom side of the signal in the 33.BRT (E) for the value 3.0 ±0.05 V dc. (Fig. 3-5-1-2)
8. Adjust the level of the part 100IRE , the bottom side of the signal in the 29.VAMP/CONT(E) for the value 7.0 ±0.05 V dc. (Fig. 3-5-1-2)
9. If necessary, repeat the above article 7 and/or 8 for shooting adjustments.
10. Connect the Oscilloscope to the TP5317 of the C board.
11. Adjust the level of 0IRE the bottom part of the signal in the 01.VAMP/OFFSET R (E) for the value 3.0 ±0.05 V dc. (Fig. 3-5-1-2)
12. Adjust the level of 100IRE the bottom part of the signal in the 30.VAMP/SUB CON R (E) for the value 7.0 ±0.05 V dc. (Fig. 3-5-1-2)
13. If necessary, repeat the above article 11 and/or 12 for shooting adjustments.
14. Connect the Oscilloscope to the TP5316 of the C board.
15. Adjust the level of 0IRE the bottom part of the signal in the 03.VAMP/OFFSET B (E) for the value 3.0 ±0.05 V dc. (Fig. 3-5-1-2)
16. Adjust the level of 100IRE the bottom part of the signal in the 32.VAMP/SUB CON B (E) for the value 7.0 ±0.05 V dc. (Fig. 3-5-1-2)
17. If necessary, repeat the above article 15 and/or 16 for shooting adjustments
18. Save the data by selecting the item " SAVE TO MEMORY " in the page of Device adjust of the menu and by pressing the ENTER.
19. Return the CONTRAST set to 80.
20. Connect the Oscilloscope to the TP5310 of the C board.
21. Enter the item WB ADJUST HIGH of the menu.

22. Adjust the DC level of the part 87.5 IRE of the following W/B HIGH adjustment use signal so that the level comes to 6.5 ±0.05 V dc. using GAIN B.
    In addition, adjust the level of the part 12.5 IRE using BIAS B so as the level to achieve the value 3.5 ±0.05 V dc.
    If necessary, continue adjustments repeating GAIN and BIAS. (Fig. 3-5-1-3)
23. Connect the Oscilloscope to the TP5317 of the C board.
24. Adjust the DC level of the part 87.5 IRE of the following W/B HIGH adjustment use signal so that the level comes to 6.5 ±0.05 V dc. using GAIN R.
    In addition, adjust the level of the part 12.5 IRE using BIAS R so as the level to achieve the value 3.5 ±0.05 V dc.
    If necessary, go on repeating GAIN and BIAS for adjustments. (Fig. 3-5-1-3)
25. Connect the Oscilloscope to the TP5316 of the C board.
26. Adjust the DC level of the part 87.5 IRE of the following W/B HIGH adjustment use signal so that the level comes to 6.5 ±0.05 V dc using GAIN B.
    Adjust the level of the part 12.5 IRE using BIAS B so as the level to achieve the value 3.5 ±0.05 V dc. If necessary, go on repeating GAIN and BIAS for adjustments. (Fig. 3-5-1-3)
27. Save the data by selecting the item " SAVE TO MEMORY " in the page of Device Adjust of the menu and by pressing the ENTER.



W/B HIGHT調整用信号(XGA)

Fig. 3-5-1-1

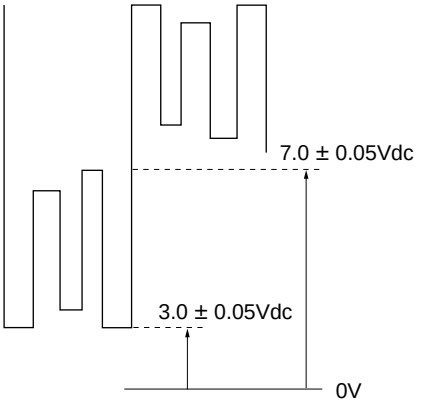


Fig. 3-5-1-2

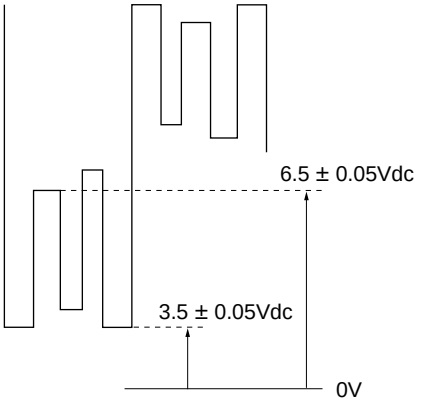


Fig. 3-5-1-3

3-5-2. Adjust RGB W/B LOW Mode

1. Enter the item WB ADJUST LOW of the menu.
2. Copy the adjusted values to R/G/B BIAS as they are saved in the HIGH Mode Adjustments.
3. As for R/G/B GAIN, write the following value:
   Adjusted value in the HIGH Mode Adjustments
   R GAIN + 5
   G GAIN – 5
   B GAIN – 15
4. Select the item SAVE TO MEMORY of W/B ADJUST of the menu. Press ENTER to save the data.
5. Enter the item OTHER of the menu Device Adjust.
6. Give 06 3D GAMMA/ THROUGH : 1 back to 06 3D GAMMA/ THROUGH : 0.
7. Give 07 3D GAMMA/ SW : back 0 to 07 3D GAMMA/ SW : 1.
8. Save data using SAVE TO MEMORY.

3-5-3. Adjust Component Y Level

1. Input the following Component Y signal to the INPUT-A. Select COMPONENT from the INPUT-A of the SET SETTING (Fig. 3-5-3-1).
2. Connect the Oscilloscope to the TP5317 of the C board.
3. Enter the item OTHER of the menu Device Adjust.
4. Set 06 3D GAMMA/ THROUGH : 0 to 06 3D GAMMA/ THROUGH : 1.
5. Set 07 3D GAMMA/ SW : 1 to 07 3D GAMMA/ SW : 0.
6. Enter the item WB ADJUST HIGH.
7. Referring to Fig. 3-5-3-2, adjust the level of the part 100IRE using GAIN B of the following signal for the value 6.6 ±0.05 V dc, then with BIAS B adjust the part 12.5 IRE for 3.5 ±0.05 V dc.
8. Connect the Oscilloscope to the TP5310 of the C board.
9. Adjust GAIN G and BIAS G so that the part of each 100 IRE and 12.5 IRE of the signal shown in the right will achieve 6.6 ±0.05 V dc and 3.5 ±0.05 V dc, respectively.
10. Connect the Oscilloscope to the TP5317 of the C board.
11. Adjust GAIN R and BIAS R so that the part of each 100 IRE and 12.5 IRE of the signal shown in the right will achieve 6.6 ±0.05 V dc and 3.5 ±0.05 V dc, respectively (See Fig. 3-5-3-2).
12. Select the item “SAVE TO MEMORY” of W/B ADJUST of the menu. Press ENTER to save data.
13. Enter the item OTHER of the menu Device Adjust.
14. Give 06 3D GAMMA/ THROUGH : 1 back to 06 3D GAMMA/ THROUGH : 0.
15. Give 07 3D GAMMA/ SW : 0 back to 07 3D GAMMA/ SW : 1.
16. Select the item SAVE TO MEMORY and press ENTER to save data.

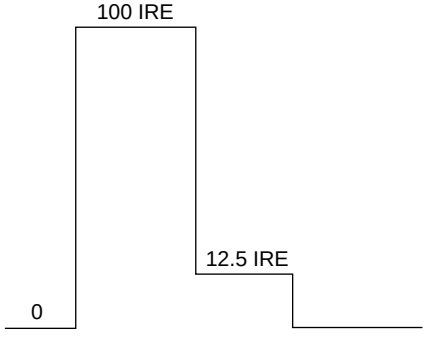


Fig. 3-5-3-1

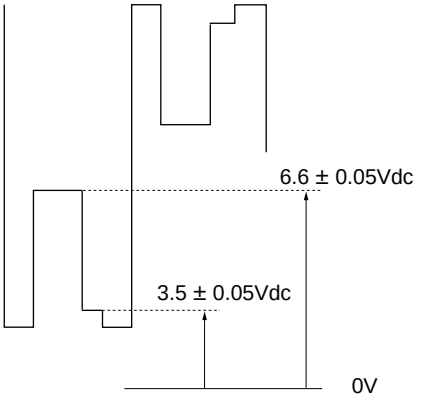


Fig. 3-5-3-2

3-6. Adjust VIDEO W/B

3-6-1. W/B HIGH Mode Adjustments

1. Input the 15KHz Component Flat Field signal to the INPUT-A. Then, select COMPONENT from INPUT-A of the SET SETTING.
2. Set D.PICTURE of PICTURE CONTROL “OFF”.
3. Set 06 3D GAMMA/THROUGH to 0 (LUTON).
4. Set 07 3D GAMMA/SW to 1(3Dγ ON).
5. Enter the menu item WB ADJUST HIGH.
6. After making sure of data R/G/B BIAS and GAIN adjusted in advance, duplicate them to GAIN and BIAS applied to the W/B LOW Mode Adjustments.
7. Input the 15 KHz Component Flat Field 80 IRE signal to the INPUT-A.
8. Adjust the y value in the W/B HIGH G Gain. When the X value inclusive of y value is bigger than the specified, regard Blue as the referenced color. To the contrary, when smaller, regard Red as the referenced. Color temperature is to be adjusted to satisfy with the follows in the GAIN other than such referenced colors.
9. Input the Component flat field 30 IRE signal to the INPUT-A.
10. On the BIAS other than the referenced color, adjust the y value to get the following color temperature.
11. Have a tracking adjustment so that both 80 IRE and 30 IRE can satisfy the standard value.
12. Select the item “SAVE TO MEMORY” of W/B ADJUST of the menu. Press ENTER to save data.

HIGH MODE Color Temperature Spec. :
(x, y)= (0.275, 0.312) ± 0.005 (80 IRE)
HIGH MODE Color Temperature Spec. :
(x, y)= (0.275, 0.312) ± 0.007 (30 IRE)

3-6-2. Adjust W/B LOW Mode

1. Enter the menu item WB ADJUST LOW.
2. Make sure first that data of section 3-6-1.6 is already been written in the R/G/B GAIN• BIAS.
3. Input the Component Flat Field 80 IRE signal to the INPUT-A.
4. Adjust the y value in the W/B HIGH G Gain. When X value inclusive of y value is bigger than the specific value, regard Blue as the referenced color.
   To the contrary, when smaller, regard Red as the referenced. Color temperature is to be adjusted to satisfy with the follows in the GAIN other than such referenced colors.
5. Input the 15KHz Component Flat Field 30 IRE signal to the INPUT-A.
6. On the BIAS other than the referenced color, adjust the y value to get the following color temperature below.
7. Have a tracking adjustment so that both 80 IRE and 30 IRE can be within the standard value.
8. Select the item “SAVE TO MEMORY” of W/B ADJUST of the menu. Press ENTER to save data.
9. Make D.PICTURE of PICTURE CONTROL “ON”.

LOW MODE Color Temperature Spec. :
(x, y)= (0.283, 0.331) ± 0.005 (80 IRE)
LOW MODE Color Temperature Spec. :
(x, y)= (0.283, 0.331) ± 0.007 (30 IRE)

3-7. Calibration Adjustments

1. Input the FLAT FIELD 60IRE signal to the INPUT-A.
2. Select 21 CALIB of P.DRV and minimize the balance of luminance between ODD and EVEN pixel.
3. Save the data by selecting the item “ SAVE TO MEMORY “ in the page of Device adjust of the Adjustments menu and by pressing the ENTER.

3-8. How to adjust at replacing a Prism or an Optical Unit.

At replacing a Prism, follow the procedures as per the methods written right here, and enter the Factory Mode so as to adjust the follows (See the Section 3-1-2. Factory Mode).

3-8-1. VCOM Adjust

Look at the bottom of the Main Menu where you find Device Menu.
Here in the Menu, select [P.DRV].
Adjust VCOM of [VCOM/R], [VCOM/G] and [VCOM/B], respectively.
Entering the VCOM Adjust mode, you will find that the screen shows a test pattern.
Then, try to minimize flickers in the screen.

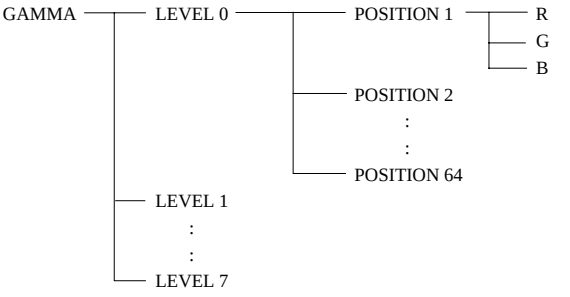
3-8-2. Adjust Polarizing Plate

Press the “ PIC MUTING “ button.
As the screen turns fully black, manipulate each of the polarizing plate of R, G, and B until to find Black most sunk.

3-8-3. 3Dγ Overview

Refer to the principle mentioning next of 3Dγ before advancing 3Dγ adjustments.

3Dγ consists of total 504 points which is figured out multiplying brightness 8 points in the level, 9 points in the horizon and 7 points in the vertical direction.
It has functions to enable individual adjust W/B in the light of R, G, and B.
Accordingly, 504 × 3(RGB) = 1512 items is required in order to complete full adjustments.
For convenience, however, this is replaceable provisionally by the following methods.
The following layer tree is the [GAMMA] Menu.
To adjust each LEVEL, the internal signal (Flat Field) of a LEVEL will be automatically shown.



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3-8-4. Procedures to adjust 3Dγ

1. To begin with, enter [GAMMA].
2. Set the LEVEL to 1.
3. Observe how the grade of uniformity of the screen may be and check undesirable portion.
4. Finding possibly un-uniformity, locate the cursor using and changing [POSISION] as 1, 2, and 3 back and forth to the place where to adjust uniformity.
5. Moving [R] and [B] up and down, achieve its uniformity to the extent of satisfactory.
6. Repeat adjustments alike on the LEVEL 2 through 6 as well.
7. Again, observe each the test pattern of the LEVEL 1 through 6.
   Finished completely by now, return to the menu 1 layer back " DEVICE ADJUST " .Then save data in the " SAVE TO MEMORY ".

Notes:

1. Do not adjust for GREEN, but RED and BLUE only.
2. Do not adjust for 0 and 7.
3. Should such adjustments be hardly unavailable and therefore, want to abandon it to Factory adjust, put the power source "OFF" before SAVE TO MEMORY of saving data. Data will return to the value default; the Factory data.
   If, oppositely, should enter to execute SAVE TO MEMORY, data will not return to the default, unable Factory to adjust.
   Therefore, when saving data after any adjusting performances, take full care of observation on the screen.
4. When a case is zoom lens, uniformity is somewhat dependent to the zooming position. Furthermore, it is possibly influenced by F Number of the lens.
   Due to these reasons, suggest adjustments be done under the projector system same as the usual operating conditions.
5. Do not use the menu DEVICE ADJUST for any items other than 3Dγ Adjust.
   This DEVICE ADJUST item is comprised of parameters important to operation of a device. Troubles such that no picture appears, or the picture clashes will be produced.
   Moreover, data of the DEVICE ADJUST item is unable to be reset in the factory.
   If " SAVE TO MEMORY " should be executed, data will completely changed to otherwise. Never take redundant operation to change data.

3-9. Memory

FX50 is composed of the following six Memory blocks.

1. Set memory.
2. Status memory.
3. Channel memory.
4. Chroma memory.
5. W/B memory.
6. Installation memory.

Gamma memory is realized in the gamma mode added by OFF SET function of the Contrast / Brightness output value to each device.

For your reference, data stream will be briefed as the follows.
When plugged in first (Standby state), whole data in the ROM are written in the NVM (Non volatile memory). Turning Power ON, memory data required enough for current video image are selected from each Memory block and developed in the RAM where adjusting is performed. Thus, data adjusted in the RAM are written and memorized in the NVM, automatically when in the user mode, or triggered by memory operation (Item in Service / Special Service).

W / B and Device Adjust is adjusted by an user in the Service mode or in the Special Service mode and memorized in NVM at performing memory operation. In this moment any data adjusted in the factory will be lost.

CPU Internal ROM : 256Kbyte Flash Memory
CPU Internal RAM : 16Kbyte
External NVM Memory : 16Kbyte EEPROM

(*) A parts of memories are existed dye to DDE setting the Status.

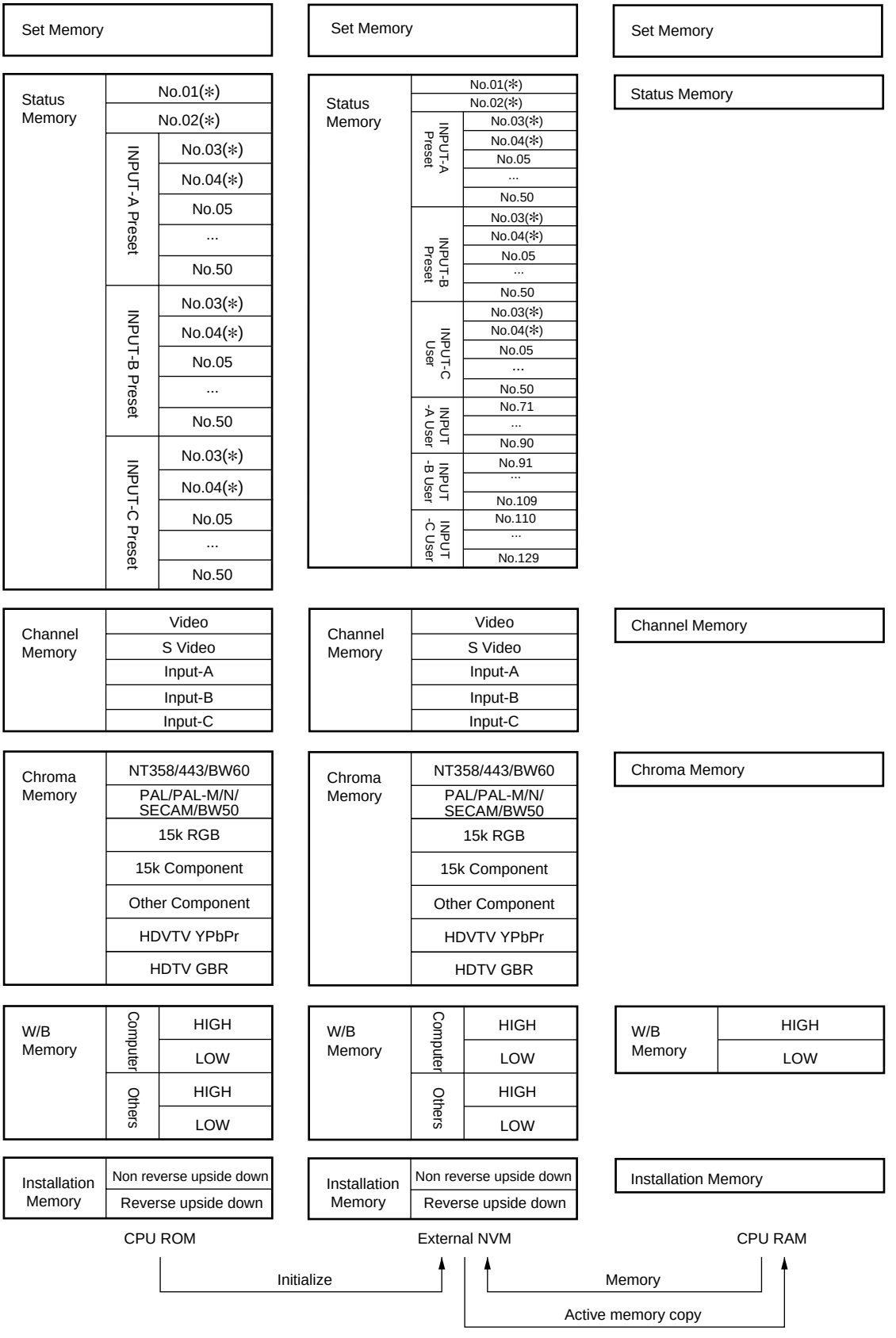

Fig. 3-9. Memory

3-10. Adjustment Item Initialize Data

MenuTitle	ItemName	MemoryName										Remark
		SET MEMORY	CH MEMORY					STATUS MEMORY	W/B MEMORY			
			VIDEO	S Video	INPUT-A	INPUT-B	INPUT-C		VIDEO-HIGH		RGB-HIGH	RGB-LOW	
PICTURE CTRL	CONTRAST		80	80	80	80	80						
	BRIGHT		50	50	50	50	50						
	COLOR		50	50	50	-	-						
	HUE		50	50	50	-	-						
	SHARP		50	50	50	-	-						
	RGB ENHANCER		-	-	30	30	30						
	D.PICTURE		OFF	OFF	OFF	-	-						
	GAMMA MODE		-	-	GRAPHICS	GRAPHICS	GRAPHICS						
	DDE		FILM	FILM	-	-	-						
	COLOR TEMP		LOW	LOW	HIGH	HIGH	HIGH						
	COLOR SYS		AUTO	AUTO	AUTO	AUTO	AUTO						
INPUT SETTING	DOT PHASE							24 (*)					
	SIZE H							*					
	SHIFT							*					
	SCAN CONV							ON (*)					
	ASPECT							4:3 (*)					
	BLANKING							0 (*)					
SET SETTING	STATUS	ON											
	INPUT-B TERM.	PC ANALOG											
	INPUT-A	COMPUTER											
	AUTO INPUT SEL	OFF											
	LANGUAGE	ENGLISH											
	POWER SAVING	OFF											
	IR RECEIVER	FRONT&REAR											
INSTALL SETTING	KEYSTONE MEM.	ON											
	DIGIT KEYSTONE	0											
	INSTALLATION	FLOOR-FRONT											
	LENS CONTROL	ON											
	MENU POSITION	CENTER											
	MENU COLOR	STANDARD											
	MENU BACKGRND	STANDARD											
	INPUT-C FUNC.	ON											
	LAMP MODE	STANDARD											
	LAMP TIMER	Dispaly											
INFORMATION	fH	Dispaly											
	fV	Dispaly											
	ROM Ver	Dispaly											
	OPERATION TIMER	Dispaly											
	PREVIOUS LAMP TIMER	Dispaly											
W/B ADJUST	GAIN R								170	175	170	175	
	G								170	165	170	165	
	B								170	160	170	160	
	BIAS R								80	80	80	80	
	G								80	80	80	80	
	B								80	80	80	80	

* Every item in the “INPUT SETTING” menu has its initial value as per input signal (PRESET MEMORY No.).

Note : Some items are not adjustable depending on the input signals.

DeviceName	ItemName	MemoryName										Remark
		SET MEMORY	CHROMA MEMORY							INSTALL MEMORY		
			NT358/NT443 /BW60	Pal/Pal-M/N/ Secam/BW50	15kRGB	YCbCr(15k)	YCbCr (Exc.15)	YPbPr	HD-GBR	Non reverse upside down		
RGB MTRX/	CONTRAST	12										Fixed Value
	R DRIVE		9	9	9	9	9	9	9			Fixed Value
	G DRIVE		9	9	9	9	9	9	9			Fixed Value
	B DRIVE		9	9	9	9	9	9	9			Fixed Value
	SUB BRT	54										Fixed Value
	YUV CON		7	7	11	11	11	11	11			
	YUV COL		12	12	12	12	12	12	12			
	SUB HUE		7	7	7	7	7	7	7			
	CTI LVL		2	2	1	1	1	1	1			Fixed Value
	R-Y/R		6	13	13	13	13	13	13			Fixed Value
	R-Y/B		12	15	15	15	15	15	15			Fixed Value
	G-Y/R		10	8	8	8	8	8	8			Fixed Value
	G-Y/B		5	4	4	4	4	4	4			Fixed Value
	SUB SHP		1	1	3	3	3	3	3			Fixed Value
	SHPF0		1	1	1	1	1	1	1			Fixed Value
	PRE OVER		0	0	0	0	0	0	0			Fixed Value
	DMIC PIC	3										Fixed Value
	LTI LVL		1	1	1	1	0	0	0			Fixed Value
D.COM/	VENH	5										Fixed Value
CHROMA/	SHP GAIN		8	8	8	8	8	8	8			Fixed Value
	SHP EQ		0	0	0	0	0	0	0			Fixed Value
	SHP F0		2	2	2	2	2	2	2			Fixed Value
	Y-OUT LVL	14										Fixed Value
	C-OUT LVL	9										Fixed Value
	Y-DL	5										Fixed Value
	S B-Y ADJ	7										Fixed Value
	S R-Y ADJ	7										Fixed Value
	S-INHBT	0										Fixed Value
	S-ID	0										Fixed Value
	S GP	0										Fixed Value
	S V-ID	0										Fixed Value
	BELL F0	0										Fixed Value
	HPF	0										Fixed Value
P.DRV/	OFFSET R(E)									168	168	
	OFFSET (GE)									168	168	Fixed Value
	OFFSET B(E)									168	168	
	VCOM R	40										
	VCOM G	40										
	VCOM B	40										
	SIG CEN	155										
	VREF R(E)									128	128	Fixed Value
	VREF (GE)									128	128	Fixed Value
	VREF B(E)									128	128	Fixed Value
	CALIB	178										
	INV CONT	0										Fixed Value
	SID LVL	218										Fixed Value
	PRG LVL	108										Fixed Value
SH/	SH1	6										Fixed Value
	SH2 R	208										Fixed Value
	SH2(G)	213										Fixed Value
	SH2 B	212										Fixed Value
VAMP/	CONT	190										
	SUB CON R(E)									180	180	
	SUB CON G(E)									180	180	Fixed Value
	SUB CON B(E)									180	180	
	BRT(E)	212										
3D GAMMA/	SUB CONT	0										Fixed Value
	SUB BRT	0										Fixed Value
	R OSD LVL	31										Fixed Value
	G OSD LVL	31										Fixed Value
	B OSD LVL	31										Fixed Value
	THROUGH	0										
	SW	1										
	APC THRES	25										Fixed Value
	APC LIMIT	32										Fixed Value
OTHER/	H START	22										Fixed Value
	V START	144										Fixed Value
	H POSITION	12										Fixed Value
	TEMP LAMP	Not adjustable										Fixed Value
	TEMP PANEL	Not adjustable										Fixed Value
	LAMP FAN 1	Not adjustable										Fixed Value
	PANEL FAN 1	Not adjustable										Fixed Value
	LAMP FAN 2	Not adjustable										Fixed Value
	PANEL FAN 2	Not adjustable										Fixed Value
	SYNCHRONOUS	1										Fixed Value
GAMMA		Factory set value										

DeviceName	ItemName	MemoryName										Remark
		SET MEMORY	CHROMA MEMORY							INSTALL MEMORY		
			NT358/NT443 /BW60	Pal/Pal-M/N/ Secam/BW50	15kRGB	YCbCr(15k)	YCbCr (Exc.15)	YPbPr	HD-GBR	Non reverse upside down		
IP/	CTI AVE PHASE	1										Fixed Value
	CTI TAP	1										Fixed Value
	CTI SHIFT	0										Fixed Value
	CTI LIMIT	128										Fixed Value
	CTI GAIN	32										Fixed Value
	CTI CORE	0										Fixed Value
	SHARP TAP	1										Fixed Value
	SHARP MODE	1										Fixed Value
	SHARP SHIFT	0										Fixed Value
	SHARP GAIN	8										Fixed Value
	SHARP LIMIT	64										Fixed Value
	SHARP CORE	0										Fixed Value
	ADJ SEL	0										Fixed Value
	MD THRES C	8										Fixed Value
	MD THRES 0	8										Fixed Value
	MD THRES 1	48										Fixed Value
	MD THRES H	2										Fixed Value
	VS	1										Fixed Value
	CONTINUE	1										Fixed Value
	EDIT DET	0										Fixed Value
	INDICATOR	0										Fixed Value
	FIELD TIMES	2										Fixed Value
	NOISE THRES	4										Fixed Value
	PULL AREA T	49										Fixed Value
	PULL AREA B	197										Fixed Value
	PULL AREA L	256										Fixed Value
	PULL AREA R	1056										Fixed Value
	SUDARE RATE	4										Fixed Value
	SUDARE THRES	64										Fixed Value
	FILM TIMES	1										Fixed Value
	MAX RATE	4										Fixed Value
	MIN RATE	8										Fixed Value
	SEQ MAX RATE	2										Fixed Value
	SEQ MIN RATE	8										Fixed Value
	FRM PAIR RATE	4										Fixed Value
	FLD PAIR RATE	8										Fixed Value
	REL THRES	64										Fixed Value
	ABS THRES	80										Fixed Value
	SEQ REL THRES	64										Fixed Value
	FRM THRES	64										Fixed Value
	FLD THRES	64										Fixed Value
	FILM COND1	240										Fixed Value
	FILM COND2	2										Fixed Value
	FILM COND3	112										Fixed Value
	FILM COND4	240										Fixed Value
	CLUSTER	1										Fixed Value
	DIF SHIFT	3										Fixed Value
	VS GAIN M	6										Fixed Value
	VS GAIN S	6										Fixed Value
	VS LIMIT	16										Fixed Value
	VS CORE	4										Fixed Value
	INT FLD POL	1										Fixed Value

Note : Some items are not adjustable depending on the input signals.

Section 4
Descriptions of Circuit Board Operations

4-1. QB Board

This board mainly performs the following 3 processes.
- Communication with the CPU by RS232C.
- Reception of the Remote Control Signal (SIRCS).
- Input of the Video Signals.

4-1-1. Communication with CPU through RS232C

IC2100 is used as a communication buffer. It is connected through the CN2102 to the computer while the signal flows in the order of IC2100 → CN2101 → BB board → C board and performs communication with the CPU in the C board.

4-1-2. Reception of Remote Control Signals (SIRCS).

Signals from the Remote Control connected by the cable are input through the J2102. Then, it is reversed by the Q2103 and output to the BB board from the CN2101 (6) pin.
In case the J2102 not connected by the cable, the signal received by the QA and N board is input from the CN2101 (7) pin, goes back to the CN2101 through the J2102 again and output to the C board from the CN2101 (6) pin.

4-1-3. Input of the Video Signal

The Video signal is input from J2101 and output to the BB board from the CN2100.

4-2. BA Board

This board mainly performs the following processes.
- Video Input Process of Video (C-Video, Y/C)
- Sync Separation

4-2-1. Functions of the main ICs

4-2-1-1. CXA2123 (IC4000), Chroma decoder & Sync processes

CXA2123(IC4000) is IC to perform Chroma decoder / Sync processes controlled by the I2C Bus Control. It processes the C-Video and Y/C signals.
CXA2123(IC4000) automatically controls NTSC3.58, NTSC4.43, PAL, PAL-M, PAL-N, SECAM and B/W while C-Video, Y and C signal are input to the ① pin, ㊹ pin and ㊸ pin ,respectively.
This IC performs Y/C separation except NTSC3.58 and PAL. These signals are converted to Y/U/V signal and output as (Y), (Cb) and (Cr) from ㉑ pin, ㉒ pin, and ㉓ pin respectively.
While C-Video / Y signal are separated into H and V, H-SYNC and V-SYNC respectively is output from the ⑨ pin and ④ pin in the Sync processes.

4-2-1-2. UPD64882 (IC4007), 3D Digital • Comb Filter

This is IC of the 3D Digital Comb Filter controlled by the I2C Bus. It performs Y/C separation for NTSC3.58.
C-Video is input to the ㊽ pin, converted to digital by internal 10bits A/D converter, then Y/C separated according to the signals of sorts of circuit when Y signal from the ㊹ pin and C signal from the ㊸ pin is output.
IC4006 is an extended 4M bits Field Memory of IC4007. It generates the Frame-delay (525H) and Field-delay (262H) signal.

4-2-1-3. MC141627FT (IC4005), 3 line. Comb Filter

This is IC for Y/C separation of PAL.
C-VIDEO signal is input to the ⑮ pin, converted to digital by internal 8bit A/D converter and then Y/C separated. Y, and C signal is respectively output from ⑥ , and ⑧ pin.

4-2-2. Flow of Signal

4-2-2-1. C-VIDEO

C-VIDEO signals from the CN4000 (A6), and (B6) pin are input to IC4000 ① pin, multiplied by 2 and output from the ③ pin of IC4000.
In case of PAL, C-Video is input to IC4005 ⑮pin through a buffer circuit which is composed of Q4006 etc., and then Y/C separated. Y and C signal respectively output from IC4005 ⑥ pin and ⑧ pin. Each Y and C signal passes the Low Pass Filter and is input to the switch IC4002 ③ pin for (Y) and to IC4003 ③ pin for (c).

As regards NTSC3.58, C-VIDEO is input to IC4007 ㊼ pin through a buffer circuit which is composed of Q4022 etc., and then Y / C separated.
After this process, Y signal is output from IC4007 ㊸ pin while C signal is from the ㊸ pin. Each Y, and C signal passes through the Low Pass Filter, and then is input to IC4002 ① pin and IC4003 ① pin, respectively.

PAL, or NTSC3.85 signals, accordingly input to the switch IC4002, or to IC4003, is selected by the control signal from the microprocessor in the C board (It defines NTSC3.85 when output of IC4004 is " Low ", and PAL or else when " High "), Y signal is output from the IC4002 ⑦ pin, C signal from IC4003 ⑦ pin and is input to IC4000 ⑤ pin and ⑦ pin again.

Each signal which is input to IC4000 is converted Y, U, and V signal, thereafter is output as Y from ㉑ pin, Cb from ㉒ and Cr signal from ㉓ pin passing a buffer. Each output voltage is 0.7V p-p at the TP4002, TP4001 and TP4000.

4-2-2-2. Y/C signal

Y, C signal which is input correspondingly from pins (A4), (B4) and (A2), (B2) of the CN4000 is output to the pin ㉑ and ㊸ of IC4000, converted to Y, U and V signal, and subsequently Y, Cb and Cr is output each from the pin ㉑, ㉒, and ㉓ passing through a buffer.
Output voltage is 0.7 Vp-p at TP4002, TP4001, and TP4000.

4-2-3. Flow of SYNC Process

4-2-3-1. At the selection of Video Signal

Video signals input to IC4000 are Sync separated internally and H-SYNC from ⑨ pin and V-SYNC signal from ④ pin is output, respectively.
As the H-SYNC is output with PLL, equalizing pulse is eliminated.
Then, both the H-SYNC and V-SYNC are input to IC4001, reversed and then transferred to the BB board from the CN4000 (A14) and (B14).

4-3. BC Board

The board features are as the follows.
- Reception and Decoding digital signals(TMDS)
- Reception of Analog signals
- DDC Communication

4-3-1. Reception and Decoding digital signals (TMDS)

Input signals to the INPUT B are digital and analog signal. Serial digital signal input from the CN4502 is decoded to RGB Parallel digital signals by IC4500 and output to the BB board from the CN4500.

4-3-2. Reception of Analog Signals

Analog signal input from the CN4502 is output to the BB board from the CN4501.

4-3-3. DDC Communication

IC4501 is a memory IC for digital DDC while IC4502 is for analog DDC of the INPUT B.
EDID data for digital is written in IC4501 while EDID for analog in IC4502.
If a computer compatible for DDC is connected to the CN4502, IC4502 is power supplied to subsequently perform DDC communication.
Alternating digital or analog through DDC communication

4-4. GA, GB Board

Voltage map is shown in the Fig.1.

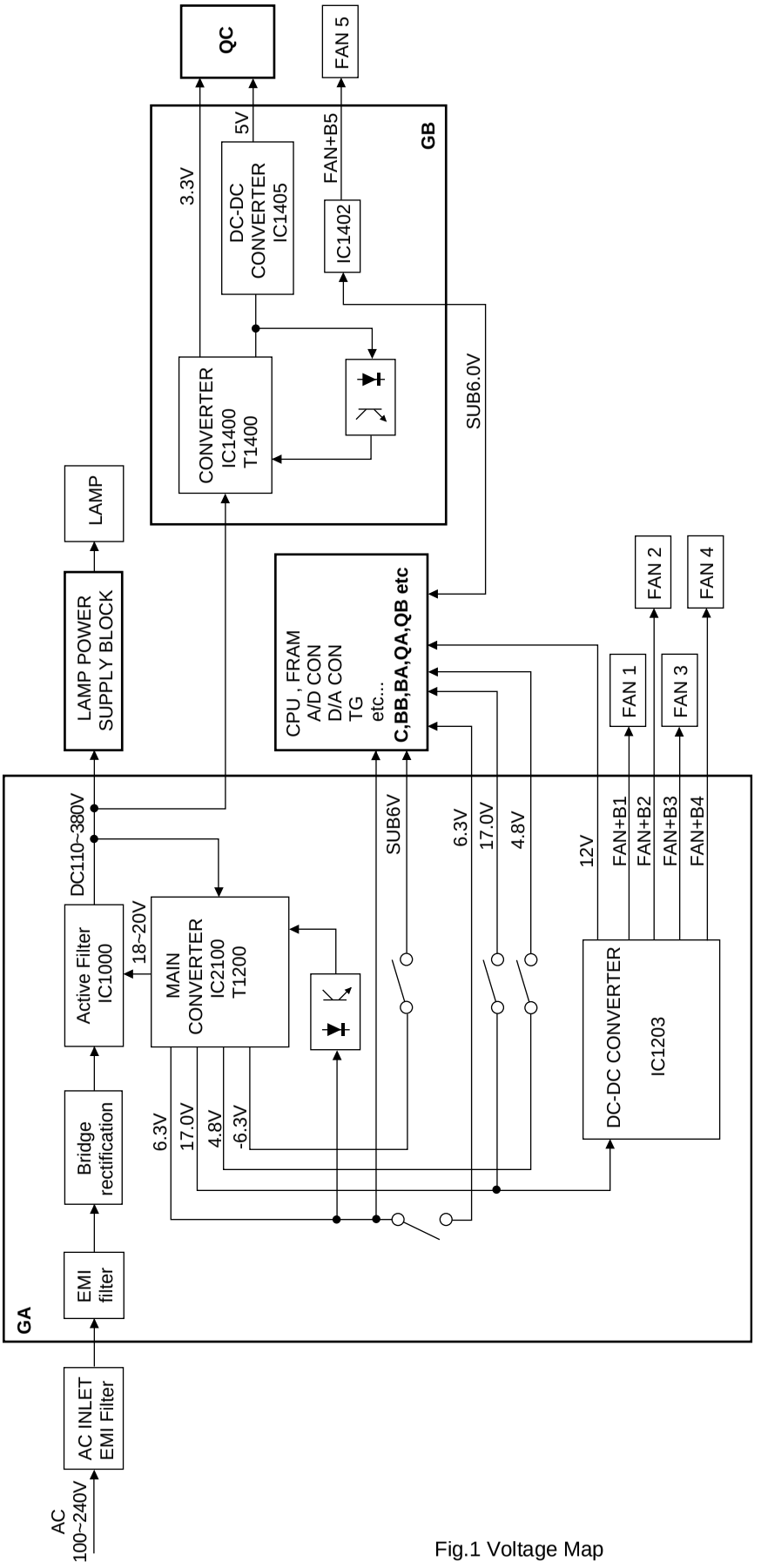

Fig.1 Voltage Map

4-4-1. GA Board

4-4-1-1. Structure

(1) EMI Filter

Fuse F1000 (6.3A/250V, conformed to the Safety Standard) is available for use anywhere regardless of marketing zone of 100V, or 200V.
This F1000 is the same fuse used in the series of VPLX600, VPL-SC50 and VPL-PX30.

(2) Active Filter

The active filter improves the power factor of the AC voltage after bridge rectification, and at the same time, serves as a step-up converter and supplies DC 345 ±10V to each for the lamp in the later stage, power supply source for circuits, and for the GB board(Power source for the QC board).
However, when the maximum AC voltage exceeds the output voltage of the active filter, the power factor will not be improved correctly.

(3) Circuit Power Source

It is DC-DC converter operations efficiently performed from Stand-by, Power ON and till lamp cooling by current resonance, optimizing controls of oscillating frequency.
With the operations of the circuits power source at the time of “Stand-by”, AC voltage is fully rectified to DC voltage and stepped-down to the SUB6V for the microprocessor and to the VCC for the Control IC for circuit power sources, including the active filter Control IC.

- VCC (19 ±1.0 V)
- SUB6V (6.3 ±0.2 V)
- 17V (16.8 ±0.8 V)
- 6.3V (6.3 ±0.2 V)
- −6V (−6.4 ±0.3 V)
- 4.8V (4.8 ±0.3 V)
- 12V (11.5 ±0.8V)
- FAN + B1, 2, 3, 4 (variable output)

(4) Inrush Current Limit Circuit

When the AC voltage is supplied with the electric load of the smoothing capacitors C1013 and C1016 fully discharged, the inrush current flows to the capacitor. As a result, it damages the fuse F1000 in the input stage. To prevent this, immediately after inputting the AC voltage, the inrush current is restricted by the R1000.
After the circuit power sources is initialized, Relay RY1000 turns ON in the state of set・stand-by and shorts-circuit both ends of R1000.

4-4-1-2. Active Filter

(1) ON/OFF Operations

At stand-by the active filter does not operate due to IC1000 pin ⑧ keeps “Low” by the Q1001. The active filter starts operations by receiving “High” signal from the microprocessor in the Y board and subsequently the CN1207 pin ① turns “High” when Q1001 goes OFF, Q1004 turns ON and further Q1005 also turns ON.
As a result, VCC is supplied to IC1000 pin ① resulting in start of the active filter.

(2) Basic operations

In conventional rectification circuits that do not use the active filter, peak recharge current is generated in a part of the AC voltage waveform due to the capacity components of the smoothing capacitor.
This may cause to invite problems of large power consumption against the effective power, and Higher harmonic, etc., and may cause subsequent problems for other equipments, too.
In order to prevent these, the power supply circuit is equipped with a step-up DC-DC converter in the smoothing circuit and adopts an active filter that proportionates the input current waveform to the input voltage waveform by appropriate control.
The operations by this active filter circuits is thus performed critical just as those series of VPL-X30 and VPL-VW10HT, but different from the case of VPL-X600 and VPL-SC50 each series.

Fig.2 shows the principle of the active filter circuit. When FET Q1008 turns ON, energy is accumulated in the chalk coil L1002.
When it turns OFF, energy is discharged, and current flows to the load side.

Fig.3 shows the relation between the voltage and current. The average input current for each switching cycle of the FET Q1008 is the half of value of the peak current that flows to the chalk coil L1002. Since these peak values can be placed on the curve proportionate to half the AC voltage (Sign curve) input, they appear like resistance load on the AC voltage from the input side of the active filter.
Sense resistor R1037 detects the current flowing into

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the FET Q1008. When this current reaches the threshold value corresponding to the peak current value flowing into the chalk coil L1002, the comparator set the FET Q1008 turned OFF.
The threshold value, by the multiplier, is sent to the comparator as the product of the AC voltage waveform by the output voltage of the control amplifier while the FET Q1008 reserves OFF state until the current of the chalk coil L1002 reaches zero.

With the PWM control of switching, the output is set to maintain approx.345 ±10 V that is performed by the R1042R1048 shunt resistor.

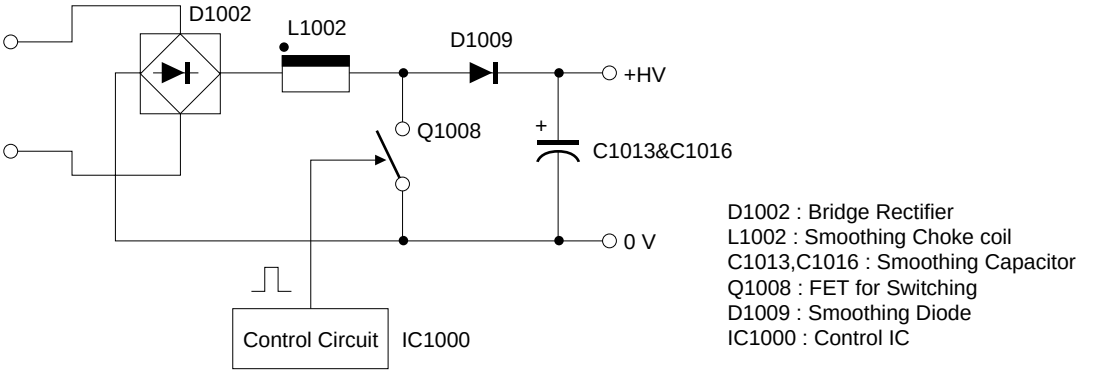

Fig.2 Principle of Active Filter

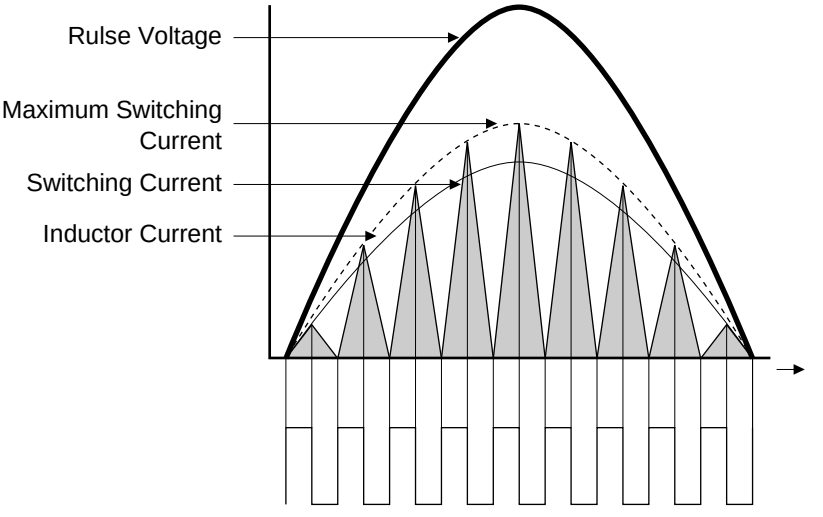

Fig.3 Voltage to Current Relative

(3) Timer Function

As a watchdog timer function is incorporated inside the IC1000, no external oscillator is required. When the current flowing to the chalk coil L1002 reaches zero and the drive output becomes OFF for more than 620 µs, the timer automatically starts or restarts the pre-converter.

(4) Internal over-voltage comparator

To prevent abnormal output voltages, the control IC1000 is equipped with an over-voltage comparator. This comparator turns ON at initial startup, when the load changes suddenly, and when the output ripple increases. The over-voltage comparator monitors the peak output voltage of the converter, and turns OFF the FET Q1008 immediately after the reference value is exceeded.

The threshold value of the comparator is set to 1.08 V in the control IC1000.

(5) External over-voltage comparator

In view that the internal over-voltage comparator does not function because the control IC1000 performs abnormal operations, an over-voltage protection circuit composed of the shunt regulator IC1001 has been equipped externally.

The voltage in between the two ends of R1049 monitors the output voltage.

When this potential reaches 2.495 V(428 V as output voltage), IC1001 is turned ON to operate the latch circuit which is composed of Q1003, Q1004, etc., and turn OFF the control IC1000.

(6) External Pre-drive Circuit

Although the control IC1000 is equipped with a totem pole output stage, generation of a heat would be rather strong due to the selection of a surface mount device, when driving a FET of a large input capacity.

To suppress this heat, added the pre-drive circuit, composed of Q1006 and Q1007, in the stage just prior to the FET Q1008.

(7) Details of Parts

- L1000
  Chalk coil to eliminate noise components in the common mode
- D1002
  Bridge Rectification Diode rectifying AC voltage into both waveforms.
  Adopted 800V Voltage tolerable taking account of of voltage changes in the market.
- R1000
  Resistor to limit a rush current at AC voltage input.
- RY1000
  Relay to short-circuit a R1000 immediately after AC voltage input.
- Q1008
  Switching FET of the active filter that is performed by PWM control of IC1000.
- L1002
  Chalk coil for the active filter.
  It accumulates energy when Q1008 is ON and supplies a current to the later stage when ON.
- D1009
  Rectifying Diode for the active filter.
  Adopted fast recovery diode for high voltage to lerance and high speed ON/OFF.
- C1013, C1016
  Smoothing capacitor for the active filter that rectifies the half wave after bridge rectification during stand-by.
  Supply DC voltage to the sub-converter in the later stage. Recharge and discharge the step-up converter when the active filter is working.
- IC1000
  IC to control an operation of the active filter.
- R1037
  Resistor to detect a current.
  A current flowing to the active filter is input to IC1000 by the potential in between the two ends of this resistor.

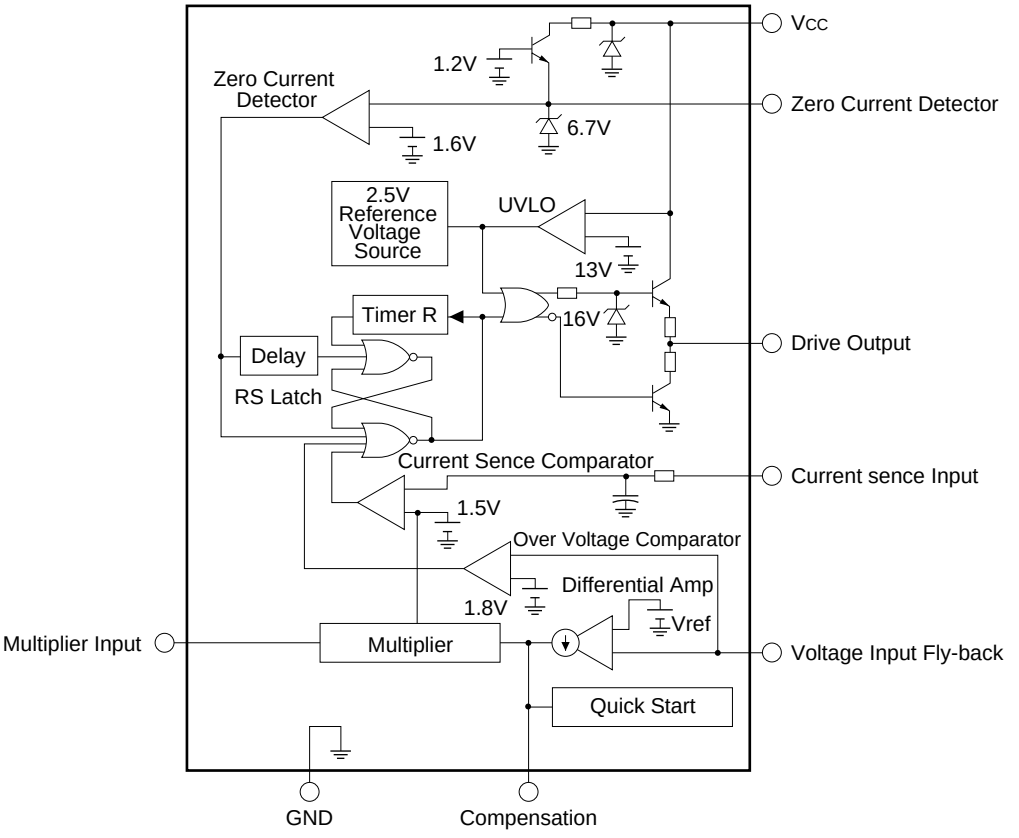

Fig.4 IC1000 Simple Block Diagram

4-4-1-3. Operations of circuit power supply

IC1200 controls a circuit power supply.

(1) Initialization

When stand-by, DC voltage is input to IC1200 pin ① (VD terminal) driving internal drain•kick function of this IC. In this result, current is supplied each to pin ⑧ (VC1) and ⑩ (VC2 driver power source).
When VC1 voltage reaches 15V or over, while VC2 does 10V or over, IC1200 starts oscillation and drives both the switching-use MOS FET Q1201 and Q1200. By this, pulse voltage is generated between pin ⑫ and ⑬ of the transformer T1200 and VCC (19 ±1.0 V)is supplied to IC pin ⑧ (VC1) with the Diode D1207 and smoothing operation of the smoothing capacitor C1212.

This VCC subsequently drives the switching-use MOS-FET Q1201 and Q1200.
In turn, when VC1 and VC2 is lower than 8.4 V and 6.8 V correspondingly, IC1200 ceases operations.

(2) Operations after POWER ON

Receiving POWER ON signal from the microprocessor, the CN1207 pin ① becomes "High" and the signal are input to the comparator IC1205 pin ⑤.
The comparator IC1205 and its peripheral parts configure a delay circuit.
After about 0.3 second this delay circuit makes the pin ① of IC1205 "Low", turns Power ON•OFF switches Q1205, Q1210, Q1214 and Q1206 ON in the power supply line and supplies working voltages to the later circuits.

(3) Details of Parts

- R1220
  Circuit Power Supply protection resistor
  In case a trouble is occurred in the later stage, this resistor makes the lines off and so protects other parts.
- IC1200
  IC 1200 is to control the circuit power supply, controlling current resonance circuit.
- T1200
  Switching Regulator Transformer for current resonance
- C1210
  Film condenser for current resonance to structure the circuit with the T1200 coils (L components).

4-4-1-4. DC-DC Converter

(1) DC-DC Converter and Switching Regulator for FAN 1, 2, 3, 4
After POWER ON, the DC-DC Converter IC1203 received the secondary output of 17 Volt (16.8 ±0.8 V) from the T1200, steps-down it to 12 V (11.5 ±0.8 V) applicable to other signal circuits.
In addition, the DC-DC Converter IC1203 also provides this 12 V with the Switching regulators (IC1209, IC1208, C1207 and IC1206) that correspond respective to FAN1 (Bottom), FAN2 (Lamp sides), FAN3 (Front), and FAN4 (For the lamp).
The microprocessor in the C board reads out the value of resistance of Thyristor, TH5000 (Value changes subject to the temperature) and then outputs the voltage to the GA board CN1207 pin ⑤ and ⑥ through the buffer in the same board.
Such the input voltage to the pin ⑤ provides electric current with the regulator IC1209 for the FAN1 and with the DC-DC converter IC2103 ADJ terminal while the voltage input to the pin ⑥ does with IC1208/ FAN2, IC1207/FAN3 and IC1206/FAN4 each ADJ terminal.
To the output VC through the buffer mentioned on the above, each IC output is controlled as the follows.

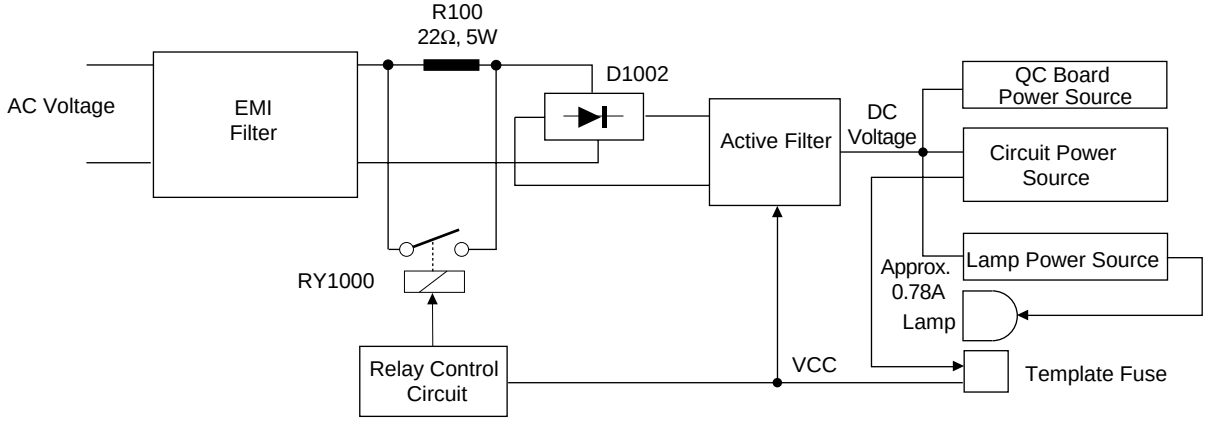

Fig.5 Lamp Run-away Countermeasure Circuit

- **When Lamp mode is STANDARD**

Outside the Set	Below 30 ℃	30 ℃ - 38 ℃	38 ℃ or Over
IC1203 Output V	Approx. 11.4 V Constant	Linear unto Approx. 12.5 V	Approx. 12.5 V Constant
IC1209 Output V	Approx. 8.8 V Constant	Linear unto Approx. 11.9 V	Approx. 11.9 V Constant
IC1208 Output V	Approx. 6.9 V Constant	Linear unto Approx. 12.1 V	Approx. 12.1 V Constant
IC1207 Output V	Approx. 6.9 V Constant	Linear unto Approx. 12.1 V	Approx. 12.1 V Constant
IC1206 Output V	Approx. 10.5 V Constant	Linear unto Approx. 11.9 V	Approx. 11.9 V Constant

- **When Lamp mode is LOW**

Outside the Set	Below 30 ℃	30 ℃ - 38 ℃	38 ℃ or Over
IC1203 Output V	Approx. 10.9 V Constant	Linear unto Approx. 12.5 V	Approx. 12.5 V Constant
IC1209 Output V	Approx. 7.5 V Constant	Linear unto Approx. 11.9 V	Approx. 11.9 V Constant
IC1208 Output V	Approx. 6.0 V Constant	Linear unto Approx. 12.1 V	Approx. 12.1 V Constant
IC1207 Output V	Approx. 6.0 V Constant	Linear unto Approx. 12.1 V	Approx. 12.1 V Constant
IC1206 Output V	Approx. 10.2 V Constant	Linear unto Approx. 11.9 V	Approx. 11.9 V Constant

4-4-1-5. Run-away Countermeasure of the Lamp Power Supply

There possibly arises a case of emitting a fume or firing because of run-away of the lamp power sources during power sources of the set circuits being at stand-by.
Such is that the lamp power source does not light the lamp ON, or oppositely the power source lights the lamp.

① In the state of stand-by all the Fans for the lamp are not working the. Therefore if the lamp is lit, the temperature fuse (working temperature is 98 ±2 ˚C) implemented on the lamp side is made open.

② The relay RY1000 is made open as the VCC from the circuits power are not supplied to the circuits.

③ Current 0.78 A approx. flows into the temperature fuse R1000 itself.
Inside the R1000 is melted down due to the internal loss of the R1000 or due to the above current.
As the result, the R1000 is made open immediately.

④ R1000 being opened, AC voltage is no longer supplied to the circuits of later stage and therefore the lamp goes off. This means that even if the lamp should run-away, it immediately goes off preventing dangerous troubles early mentioned as fume or fire.

4-4-2. GB Board

4-4-2-1. Structure

(1) Power source for the QC Board only

DC 5V and DC3.3 V is supplied to the QC board regardless of whether it is set " stand-by" or state "after Power ON ".

(2) Lens. Motor.Drive circuits

This circuit drives the electric motors for SHIFT, or ZOOM which is attached to the lens. and for FOCUS. In case of lenses for manual, however, it is natural that the circuit drives the motor for SHIFT only.

4-4-2-2. Power Source Operations for the QC Board

The basic operation is a current resonance operation the same as to the circuit power source mentioned before. Inputting the AC voltage to the set, since SUB6V of the GA board is input to CN1402 pin (3) via the C board, the Photo coupler PH1400 is turned ON, subsequently IC1400 pin ① (VSENSE) becomes "Low" ,the control IC for the power source of the QC board. Then, the QC board power

source stops operations.
When “High” signal flows from the C board to CN1402 ⑤ pin, it turns ON Q1405 and at the same time makes the Photo coupler 1400 OFF. As the result, IC1400 pin ① VSENSE becomes “High”, and QC board power source starts operations.
For operating QC board, 3.3 V and 5 V are used. The former is the straight output value after smoothing the secondary side of the T1400, transformer, the later is the one stepping-down the secondary output by the DC-DC converter T1400 from 7 V to 5 V.
Meanwhile, 3.3 V and 5 V lines, MOS-FET Q1407 and Q1408 for operating ON or OFF.
This operation aims at shortening a rising time of voltage waveform supplied to the QC board.
When the DC-DC converter IC1405 rises up, its output is input to IC1406 of the Delay-circuit to turn ON Q1408 and next Q1407 in about 0.6 second.
With these MOS-FET Q1407/1408, about 20 to 40 ms can be shortened.

4-4-2-3. Lens • Motor • Drive Circuit Operations

IC1605, IC1606 and IC1607 are drive ICs correspondingly to drive ROCUS, ZOOM and SHIFT for the lens. These controls are performed by the signal from the microprocessor in the C board only when CN 1600 pin (1) receives “Low” signal.
When 3 bit signal is input to CN1600 pins (2) through (4), operations are made by the gate circuit structured inside like the PLD IC1603 for selecting FOCUS, ZOOM or SHIFT or, to brake abnormal performances as an reversible movements.

4-4-2-4. Details of Parts

- R1416
  This is a resistor to protect the power source of the QC board. When a problem occurs in the later stage of circuit, it opens the line to protect other parts.
- IC1400
  This is a control IC for the power source of the QC board. It targets to control current resonance circuit.
- T1400
  Switching• Regulator•Transformer for current resonance of the QC board power supply.
- Q1401, Q1400
  Q1401 and Q1400 are components to configure switching-use MOS-FET and a half bridge circuit for the QC board power supply.
- C1408
  This is a film capacitor for current resonance, which forms a resonance circuit together with the T1400 coils(L component).
- IC1405
  IC1405 is a DC-DC converter to step-down the secondary output about 7V of T1400 transformer to 5 V.
- IC1402
  A series regulator; steps-down from SUB 6 V to 5 V for the FAN 5. It keeps operating when stand-by state as well.
- IC1406
  This is comparator IC to delay the output voltage.

4-5. BB Board

The BB board receives analog RGB signals from the QA board, digital RGB signals from the BC board (TMSD: Panel Link) and Windows CE digital signals from the QC board.
The BB board converts these signals to the XGA signals equivalent to VESA60 and outputs them to the C board adding OSD signals.

4-5-1. Part of Input

Analog RGB signals are A/D converted by the FMS9884AKAC175.
Digital RGB signals (Panel Link) are supplied from the CN3003 after parallel conversion.
Signals from Windows CE are input to the CN3004 after serial to parallel conversion by the LVDS receiver IC3030.
As these outputs are of 3 states and gives high impedance when non-active, they are directly connected for being input to IC3040.
Horizontal and Vertical Sync (GSS1, GSV1) signal for each input signals mentioned on the above are output for use of input detection to the C board through the buffer by IC3064.
As analog RGB signals and digital data of the Panel Link signals are output for amount of 2pixels at the same time, data of 48 bits, which is counted by 3 colors x 8 bit x 2pixel, are input. Therefore, inputting clock “GCLK1” is figured 32.5 MHz provided that dot clock of the input signal is 65 Hz.

4-5-2. A/D Converter

FMS9884AKAC175 is the A/D converter with PLL, incorporates clamp Amp., and provides maximum 175 MS/s bits 3 colors.
It is controlled by the 12C line (SA, SL) from PW164. The gain of FMS988AKAC175 is set to have 20% margin over the input signal 0.7 V p-p.
Control of the Dot phase and H size is also performed through the 12C line.
Although CLAMP or HSYNC polarity is programmable, currently the former is output with negative polarity, and the later with pulses of negative polarity.
Analog power source VD of the converter is noise-stabilized by IC3057.
In addition, targeting further stability PLL power is supplied by IC3028LP2985-3.5 that can enable the ceramic condenser for use of output condenser.

4-5-3. CXD9606 (IC3040)

Input signals from A/D converter, and then transfer them to the scan converter in the same format.
Contents of Input and Output signals are video image data RE0 thru 7, RO0 thru 7, GE0 thru 7, BE0 thru 7, BO0 thru 7 and H.VSYNC CLOCK as a Sync system.
Processing main contents are of x2 in the line processing speed and film video image processing.
The 12C line (SDA, SCL) controls this system IC same as the case of A/D converter.

4-6. C Board

4-6-1. Overview

Main functions of this board are separated as the follows one so called video signal processing system and another so called controlling system.
The former, in other words, is to process digital video signals all the way output from scan converter in the BB board, 3Dγ , D/A converter, RGB Amplifier, Panel driver, and timing generator and finally to drive the LCD panel.
The later, performs sorts of control by the Main CPU and does down load of programs from the main CPU and Scan converter.

4-6-2. Video Signal Processing

4-6-2-1. Block Diagram

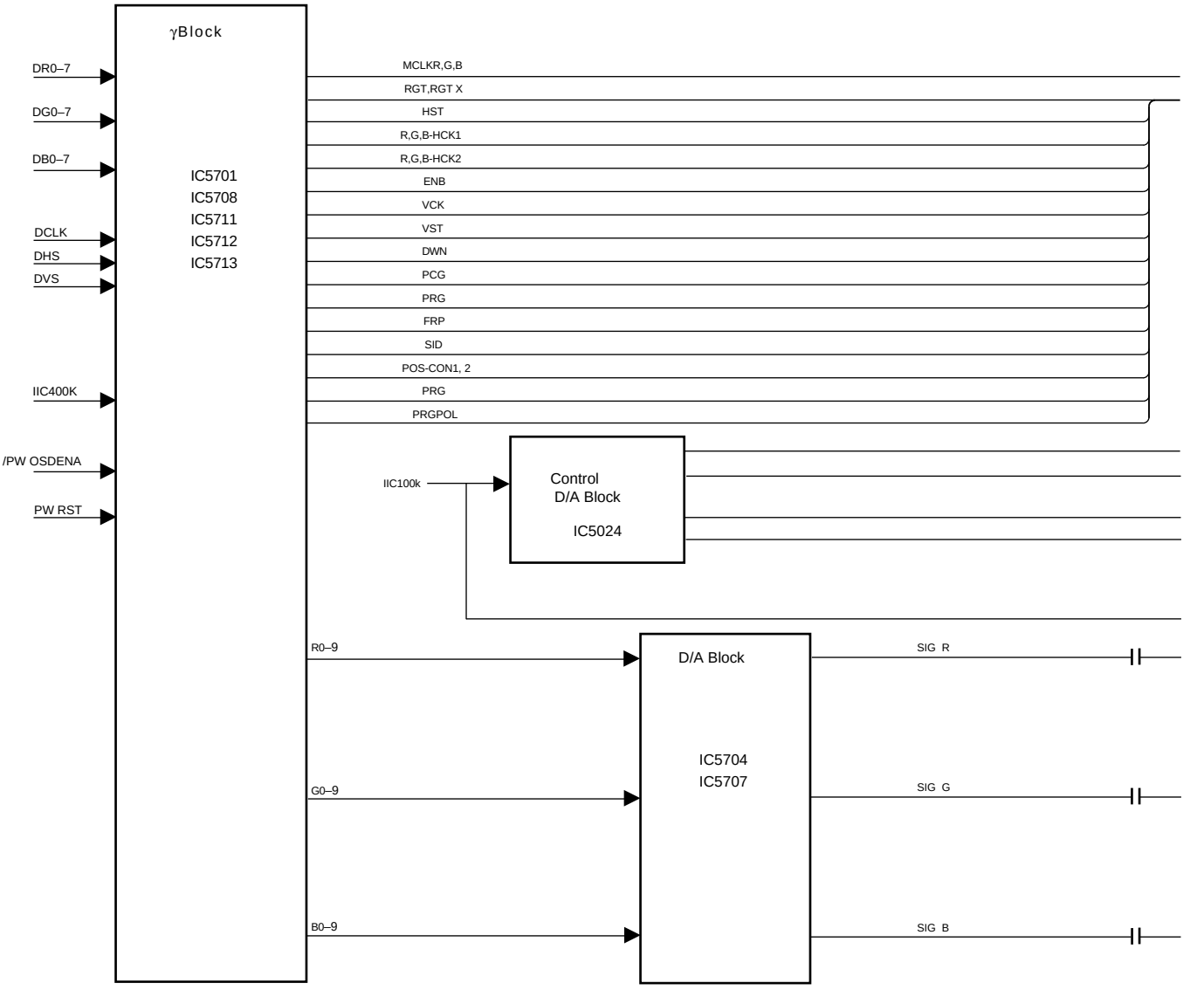

Fig.6-1 C Board Video Signal Processing Block

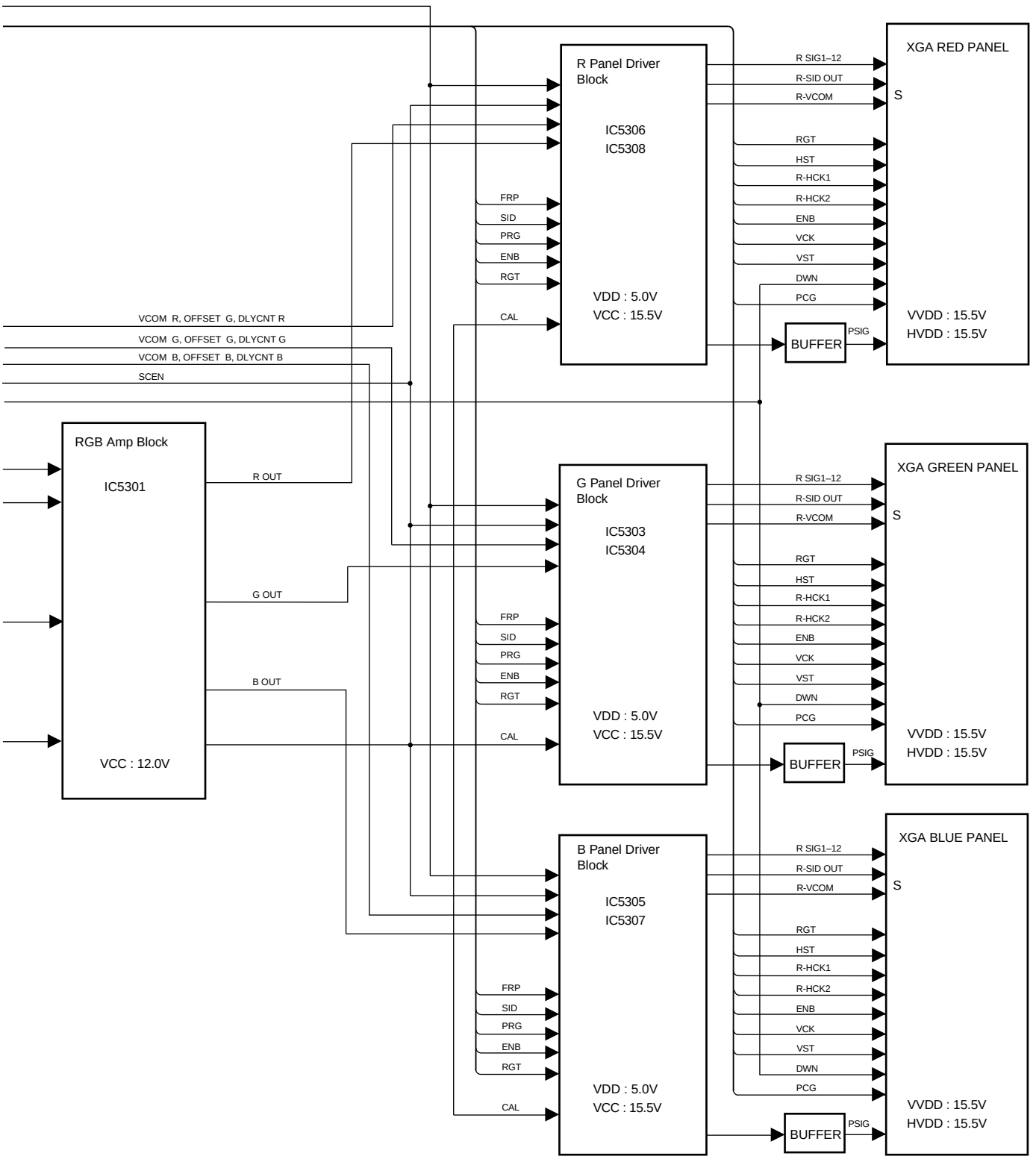

Fig. 6-2 C Board Video Signal Processing Block

4-6-2-2. Explanation of the Block Diagram

RGB each color 8 bits digital data from scan converter (DR0 thru 7, DG0 thru 7, DB0) are digitally processed to 3Dγ and W/B by the γ block.

In the D/A block, the output γ signal is converted to analog RGB signals from digital signals. Then, the RGB Amp. Block in the later stage adjusts the RGB signals to an appropriate input level for the panel driver block.

After doing those reverse, amplification and sample holding process in the driver block, those signals are sent to the LCD panel.

Since the γ block incorporates a timing generator, generates sorts of timing signals from DCLK (Dot clock) of scan converter output signals, DVS(V-SYNC), and DHS(H-SYNC). These timing signals are required to drive panel driver block and LCD panel.

"Control D/A Block " converts the data from IICBUS to voltage and outputs such level of VCOM, etc.

4-6-2-3. Explanation of the Main Block

(1) γ Block

The block is formed by 3Dγ processes, IC5701 which generates timing signal for LCD panel control and its peripherals.

- IC5701 moves against the waveform width and the DC level against the input digital video signals. It corresponds with contrast and bright control performed by a user.
- W/B processing: Adjust hue by moving the width and DC level(Gain and Bias) of each RGB waveform individually.
- Composition of internal pattern and OSD
- γ & 3Dγ correction

IC5701 generates the following timing signals with DVS, DHS and DCLK.

HST: Starting pulse to drive H SHIFT register of LCD panel

HCK1 (R, G, B):
Clock to drive H SHIFT register of LCD panel

HCK2 (R, G, B):
Reversal clock of HCK1

VCK: Clock to drive V SHIFT register of LCD panel

VST: Starting pulse to drive V SHIFT register of LCD panel

PCG: Pulse to improve uniformity of the LCD panel

ENB: Enable pulse input to select the gate of LCD panel

RGT: Switching signal of the scan direction

PRGPLS:
Pulse to define the width of the 1st stage of PSIG (to improve the uniformity of LCD panel)

FRP: Pulse to reverse the video signals to PSIG

DWN:
Signal to reverse the video image upside down

SID: 3value signal to generate PSIG

ENBP:
Gate selecting pulse of LCD panel

POS-CON (1, 2):
Adjusting signal for the sample-hold timing

CLP: Clamp timing signal of video signals

(2) D/A Block

The D/A block is structured by 10 bits 3ch D/A converter (IC5704) and by its peripherals.

It converts digital signals (R, G, B) from γ block to analog signals (R, G, B).

(3) RGB Amp. Block

This block is built with RGB AMP (IC5301) and its relative circuits.

It firstly executes DC cut of the analog signals (R, G, B) in the D/A block, clamps them using the CLP signal that was generated in the 3D@g@ block, adjusts both waveform width and the DC level the input level of next stage panel driver, and then outputs through the emitter follower.

(4) R (G, B) Panel Driver Block

Panel Driver Block consists of IC5306 (CXA3512R) and IC5308 (CXA3512R).

This IC CXA3512R has line reversible AMP., afford to amplify gain by 3 times. The AMP output is performed sample-hold b by every 6 dots on the LCD panel, timing aligned, and then output to the LCD panel.

As the LCD adopted in this Set performs based on 12 dots one time sample, uses circuit of 2 pieces of CXA3512R alternately connected per every dot of sample-hold function.

In addition, this block has functions to line reverse SID value signal, generated in the 3D@g@, to amplify and to drive PSIG to the LCD panel through a transistor.

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The block also has a function to drive the VCOM from CXA3512R to LCD panel, that is controlled by RVCOM; output from the Control D/A Block.

Mentioning G, or B panel driver block will be eliminated since it is the same to “R” stated on the above.

4-6-3. Control System

Control system includes Main CPU (IC5021), DAC (IC5231) for I/O expansion that is for DDC switching controlled by CPU through IIC bus, and circuits to write the Software in the Main CPU and the Scan Converter (IC5227, IC5230) through RS232C.

Note : When writing software through RS232C, use the computer which installs write only software and at the same time operate S5001 to the side “RSON”.
In turn when finished, set S5001 to the “RS OFF”.

Main functions of the Main CPU are 3 channels of IIC Bus (400k*1, 100k*2) to control each major IC, 1 channel of SIRCS to input the remote control, 3 channels of UART to communicate using RS232C protocol (For RS232C, Scan converter, WinCE), lens motor control, key in from the control panel, LED control/output, such miscellaneous protector inputs as lamp power, cover, temperature, and cooling fan, and controls for cooling fan and lamp power, etc.
With these functions the Main CPU realizes operation of power sequence of the set, set operation through remote control panel and sorts of protector operation.

4-7. Main CPU: H8S/2633(TFP-120) PIN Assign

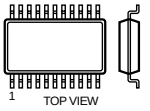
Pin No.	Name of Pin Function	Mode 7	Item Name
1	A0/PC0	PC0	SCL400K
2	A1/PC1	PC1	SDA400K
3	A2/PC2	PC2	
4	A3/PC3	PC3	SCL100K-II
5	VSS	VSS	
6	A4/PC4	PC4	SDA100K-II
7	VCC	VCC	
8	A5/PC5	PC5	SDA100K-II
9	PWM0/A6/PC6	PWM0/PC6	BOARD Reset Control
10	PWM1/A7/PC7	PWM1/PC7	BOARD Change Status
11	VSS	VSS	
12	TIOCA3/A8/PB0	TIOCA3/PB0	SIRCS
13	PVCC1	PVCC1	
14	TIOCB3/A9/PB1	TIOCB3/PB1	ID SW0
15	TIOCC3/A10/PB2	TIOCC3/PB2	ID SW1
16	TIOCD3/A11/PB3	TIOCD3/PB3	SCL100K-II
17	TIOCA4/A12/PB4	TIOCA4/PB4	! HD
18	TIOCB4/A13/PB5	TIOCB4/PB5	SDA100K-II
19	TIOCA5/A14/PB6	TIOCA5/PB6	! VD
20	TIOCB5/A15/PB7	TIOCB5/PB7	SDA100K-II
21	A16/PA0	PA0	LAMP PROT
22	TxD2/A17/PA1	TxD2/PA1	TXD FW/TXD OSD/TXD RS
23	RxD2/A18/PA2	RxD2/PA2	RXD FW/RXD RS
24	SCK2/A19/PA3	SCK2/PA3	SCLK OSD
25	VSS	VSS	
26	A20/DACK0/TIOCA0/PO8/P10	DACK0/TIOCA0/PO8/P10	P.SAVE LED
27	A21/DACK1/TIOCB0/PO9/P11	DACK1/TIOCB0/PO9/P11	LAMP LED1
28	A22/TCLKA/TIOCC0/PO10/P12	TCLKA/TIOCC0/PO10/P12	TEMP LED
29	A23/TCLKB/TIOCD0/PO11/P13	TCLKB/TIOCD0/PO11/P13	POWER LED
30	IRQ0/TIOCA1/PO12/P14	IRQ0/TIOCA1/PO12/P14	! VSO
31	P15/PO13/TIOCB1/TCLKC	P15/PO13/TIOCB1/TCLKC	! HD
32	P16/PO14/TIOCA2/PWM2/IRQ1	P16/PO14/TIOCA2/PWM2/IRQ1	LIGHT ON
33	P17/PO15/TIOCB2/TCLKD/PWM3	P17/PO15/TIOCB2/TCLKD/PWM3	! VD
34	PE0/D0	PE0	USB REQEST
35	PE1/D1	PE1	AUDIO CS
36	PE2/D2	PE2	3D Gamma Reset
37	PE3/D3	PE3	ID SW2
38	PE4/D4	PE4	LAMP ON
39	PE5/D5	PE5	POWER ON
40	PE6/D6	PE6	Menu Status output

Pin No.	Name of Pin Function	Mode 7	Item Name
41	PE7/D7	PE7	BOARD POWER SOURCE CONTROL
42	VSS	VSS	
43	PD0/D8	PD0	LAMP PROT2
44	PVCC1	PVCC1	
45	PD1/D9	PD1	FAN PROT1
46	PD2/D10	PD2	FAN PROT2
47	PD3/D11	PD3	FAN PROT3
48	PD4/D12	PD4	POWER PROT
49	PD5/D13	PD5	FILTER COVER
50	PD6/D14	PD6	LAMP COVER
51	PD7/D15	PD7	FILTER CLOGGING Aux.
52	P30/TxD0/IrTxD	P30/TxD0/IrTxD	TXD RS
53	P31/RxD0/IrRxD	P31/RxD0/IrRxD	RXD RS
54	PVCC2	PVCC2	
55	P32/SCK0/SDA1/IRQ4	P32/SCK0/SDA1/IRQ4	SDA USB
56	VSS	VSS	
57	P33/TxD1/SCL1	P33/TxD1/SCL1	SCL USB
58	P34/RxD1/SDA0	P34/RxD1/SDA0	LAMP LED2
59	P35/SCK1/SCK4/SCL0/IRQ5	P35/SCK1/SCK4/SCL0/IRQ5	FILTER LED Aux.
60	P36/RxD4	P36/RxD4	VISCA | RxD S/C
61	P37/TxD4	P37/TxD4	VISCA | TxD S/C
62	PG0/CAS/IRQ6	PG0/IRQ6	INTERLACE DET
63	PG1/CS3/OE/IRQ7	PG1/IRQ7	PIC. MUTE
64	PG2/CS2	PG2	!PW-OSD ENA
65	PG3/CS1	PG3	STATE
66	PG4/CS0	PG4	PW update
67	WDTOVF	WDTOVF	! WDTOVF
68	PLLVCC	PLLVCC	
69	PLLCAP	PLLCAP	
70	PLLVSS	PLLVSS	
71	RES	RES	! RESET
72	NMI	NMI	
73	STBY	STBY	
74	FEW	FEW	FEW
75	XTAL	XTAL	
76	VCC	VCC	
77	EXTAL	EXTAL	
78	VSS	VSS	
79	OSC1	OSC1	
80	OSC2	OSC2	

Pin No.	Name of Pin Function	Mode 7	Item Name
81	PVCC1	PVCC1	
82	PF7/ϕ	PF7/ϕ	Feature1
83	VSS	VSS	GND
84	PF6/AS/LCAS	PF6	Aux.
85	PF5/RD	PF5	Control Pulse
86	PF4/HWR	PF4	Encode0
87	PF3/LWR/ADTRG/IRQ3	PF3/ADTRG/IRQ3	Encode1
88	PF2/LCAS/WAIT/BREQ0	PF2	Encode2
89	PF1/BACK/BUZZ	PF1/BUZZ	Auto Focus Exe
90	PF0/BREQ/IRQ2	PF0/IRQ2	Auto Focus Status
91	AVCC	AVCC	
92	Vref	Vref	
93	AN0/P40	AN0/P40	KEY 0
94	AN1/P41	AN1/P41	KEY 1
95	AN2/P42	AN2/P42	KEY 2
96	AN3/P43	AN3/P43	KEY 3
97	AN4/P44	AN4/P44	Feature2
98	AN5/P45	AN5/P45	Feature3
99	DA0/AN6/P46	DA0/AN6/P46	FAN CONT 1
100	DA1/AN7/P47	DA1/AN7/P47	FAN CONT 2
101	AN8/P90	AN8/P90	LAMP TEMP
102	AN9/P91	AN9/P91	PANEL TEMP
103	AN10/P92	AN10/P92	D+5V SENSE
104	AN11/P93	AN11/P93	FILTER SENSE
105	AN12/P94	AN12/P94	Mouse Enable (7ch) Required or Not Required
106	AN13/P95	AN13/P95	
107	AN14/P96	AN14/P96	
108	AN15/P97	AN15/P97	Aux.
109	AVSS	AVSS	
110	CS4/DREQ0/TMCI01/TMRI01/P70	DREQ0/TMCI01/TMRI01/P70	Factory Mode
111	CS5/DREQ1/TMCI23/TMRI23/P71	DREQ1/TMCI23/TMRI23/P71	LAMP MODE
112	SYNCI/CS6/TEND0/TMO0/P72	SYNCI/TEND0/TMO0/P72	NF !ON
113	CS7/TEND1/TMO1/P73	TEND1/TMO1/P73	NR !ON
114	MRES/TMO2/P74	MRES/TMO2/P74	AUDIO MUTE
115	SCK3/TMO3/P75	SCK3/TMO3/P75	SCLK
116	RxD3/P76	RxD3/P76	SRD
117	TxD3/P77	TxD3/P77	SDAT
118	MD0	MD0	MODE 0;LSB
119	MD1	MD1	MODE 1
120	MD2	MD2	MODE 2;MSB

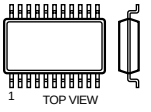
Section 5
Semiconductors

24LC128T-I/SN
24LC21AT/SN
GS1881-CA
LM385MX-1.2
M24C64-WMN6T(A)
MAX16265SA-TE2
MAX3085CSA-TG068
SN75157PS-ELL2200
SN75453BPSR
SNIRMF2-AOT-OTP
TC7W00F
TC7W00F(TE12R)
TC7W04FU(TE12R)
TC7W126FU(TE12R)
TC7W126FU-TE12R
TC7W14F(TE12R)
TC7W14FU(TE12R)
TC7W240FU(TE12R)
TC7W32FU(TE12R)
TC7W53FU(TE12R)
TC7W74FU(TE12R)
TC7WH240FU
TC7WH74FU(TE12R)
TL082CPS-E20
TL431BCDR2
UPC393G2-E2



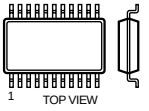
8 pin SOP

74VHC221AMTX
CXA1874AM-T4
MAX202CSE-T
MAX797ESA-TE2
MC74HC4538AFEL



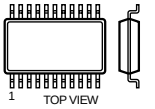
16 pin SOP

74VHC240MTCX
74LCX541MTCX
IMISM530AYB-O
M52347FP-TE
M62392FP
TC74VHCT244AF(EL)



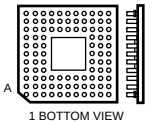
20 pin SOP

74VHC00MTCX
74VHC02MTCX
74VHC125MTCX
HA4314BCB-E2
SN74HCU04ANS-E20)
TC74LCX125MTCX
TC74VHC04F
TLC74VHC125F(EL)
TLC74VHC14AFT(EL)



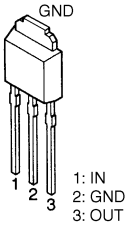
14 pin SOP

ADV7123KST140
MC14162FT

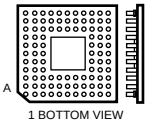


48 pin PGA

BA00AST-V5
BA033FP-E2
BA05FP-E2
BA09FP-E2
BA12FP-E2

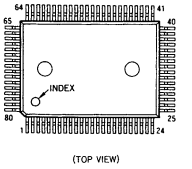


CXA2019AQ-T4

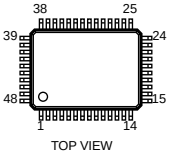


40 pin PGA

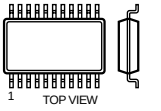
CXA2101AQ



CXA2123AQ-T6

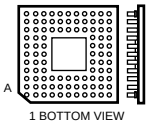


CXA3512R-T6



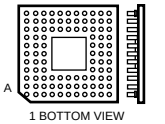
84 pin SOP

CXD9607GB



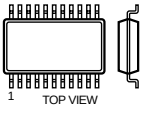
144 pin PGA

CXD9609Q



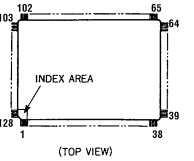
208 pin PGA

DS90CF386MTDA

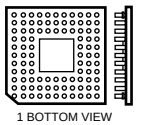


56 pin SOP

FMS9884AKAC175

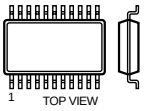


HD64F2633TE



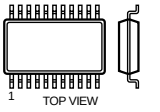
120 pin PGA

HY57V161610DTC-71R



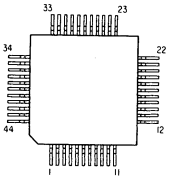
50 pin SOP

IDT71V016S15PH-TL

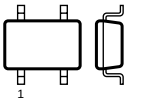


42 pin SOP

ISPLS2032VE-80LT44-1709GB
ISPLS2032VE-80LT44-QCV2
ISPLS2032VE-110LT44

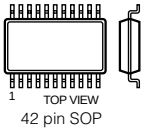


LM7131BCM5X
LP2985IM5X-3.5
NC7SZ04P5
NC7SZ126P5X
TC75S56F(TE85R)
TC7S14F(TE85R)
TC7SET08FU(TE85R)



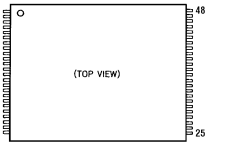
5 pin CHIP

M52749FP-TP



42 pin SOP

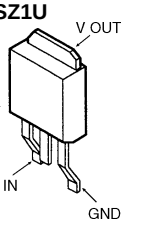
MBM29LV400TC-70PFTN-SN696



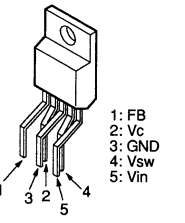
MCZ3001D
L7809CV
LT1269CT
M27C4002-10F1

18 pin DIP

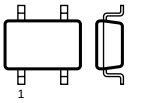
PQ05SZ1U



PQ20VZ1U
PQ20VZ5U

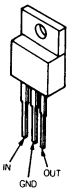


S-80828ANNP-EDR-T2

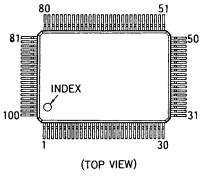


4 pin CHIP

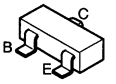
TA7812(TE12L)



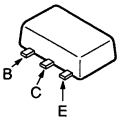
UPD64082GF-3BA



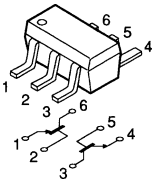
2SA1037AK-T146-QL
2SA1162-YG-TE85L
2SA1462-T1Y33Y34
2SC2412K
2SC2712-YG-TE85L
2SC3326N-TE85L
2SC3545-T1T44
DTA144EK-T146
DTC123EKA-T146
DTC144EKA-T146



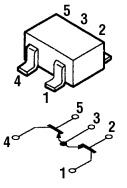
2SC2312Y-TE85L
2SC2873Y-TE12L



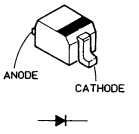
HN1B01FU-TE85R



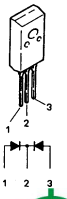
FMS1A-T148



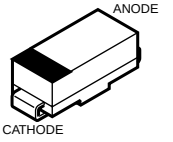
1SS355TE-17
D2FS6-TA
MA111-TX
UDZ-TE-17-15B
UDZ-TE-17-18B
UDZ-TE-17-27B
UDZ-TE-17-3.3B
UDZ-TE-17-33B
UDZ-TE-17-5.6B
UDZ-TE-17-6.8B



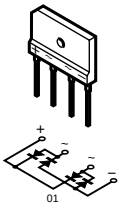
D10SC4M



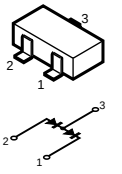
D1FS4A-TA



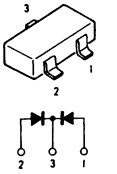
D6SB80



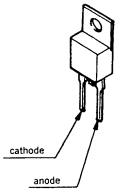
DA204K-T146



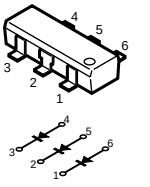
DAN202K-T-146
MA157-TX



FSF10A60



HN1D03FU-TE85L
HN1D03FU-TE85R



RD27SB-T1
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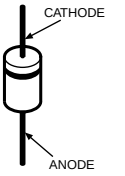
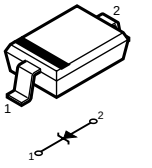
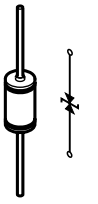


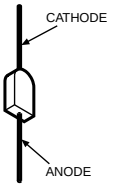
RD5.6SB2-T1
RD9.1SB2-T1



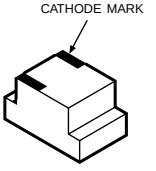
RD9.1EW



RM11A



SEC1801C
SEC1901C
SEC2422C



Section 6
Spare Parts

6-1. Notes on Repair Parts

1. Safety Related Components Warning

WARNING

Components marked ⚠ are critical to safe operation. Therefore, specified parts should be used in the case of replacement.

2. Standardization of Parts

Some repair parts supplied by Sony differ from those used for the unit. These are because of parts commonality and improvement.
Parts list has the present standardized repair parts.

3. Stock of Parts

Parts marked with “o” at SP (Supply Code) column of the spare parts list may not be stocked. Therefore, the delivery date will be delayed.

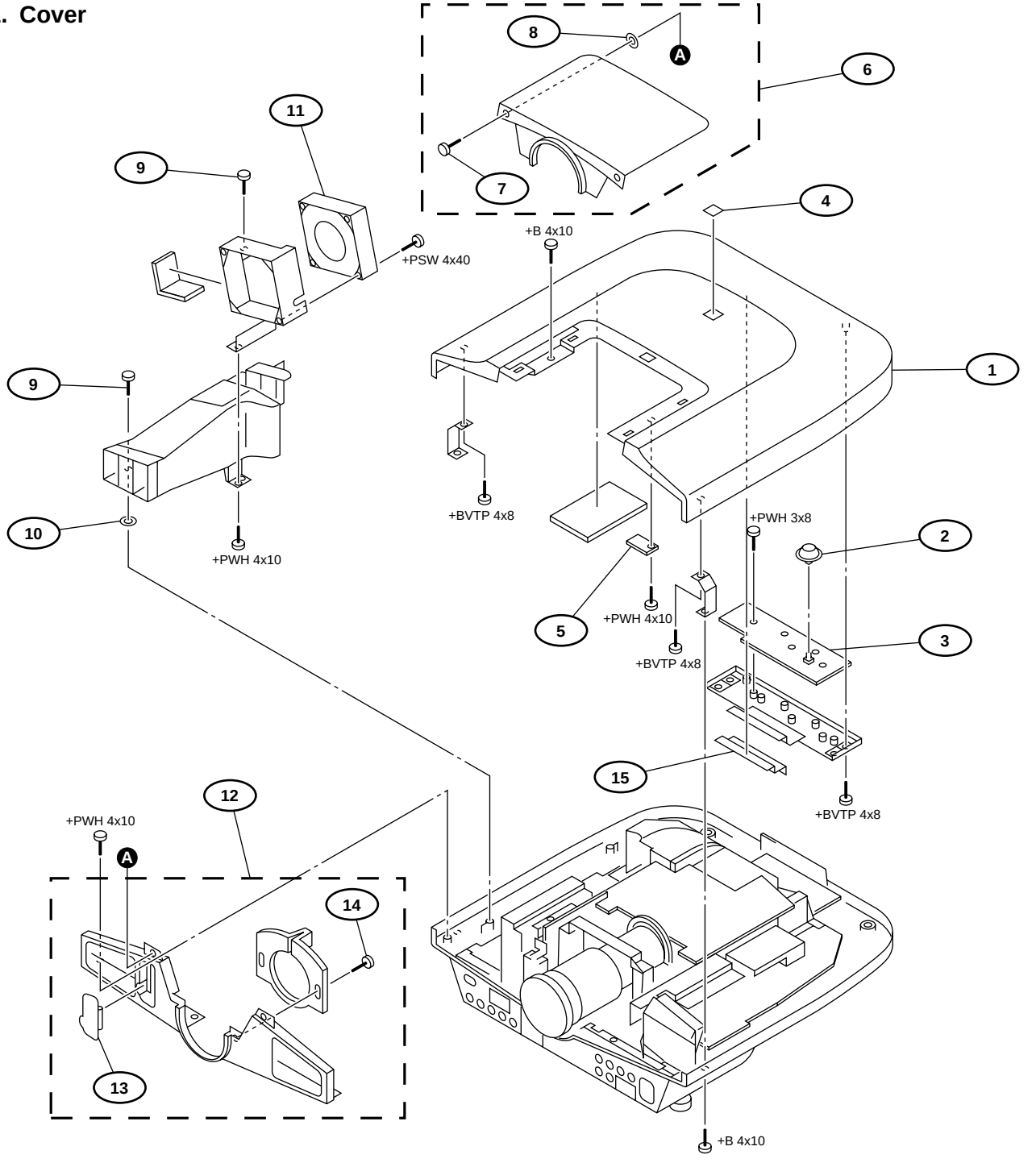
4. Units for Capacitors, Inductors and Resistors

The following units are assumed in Schematic diagrams, Electrical Parts List and Exploded Views unless otherwise specified.

Capacitors	: µF
Inductors	: µH
Resisitors	: Ω

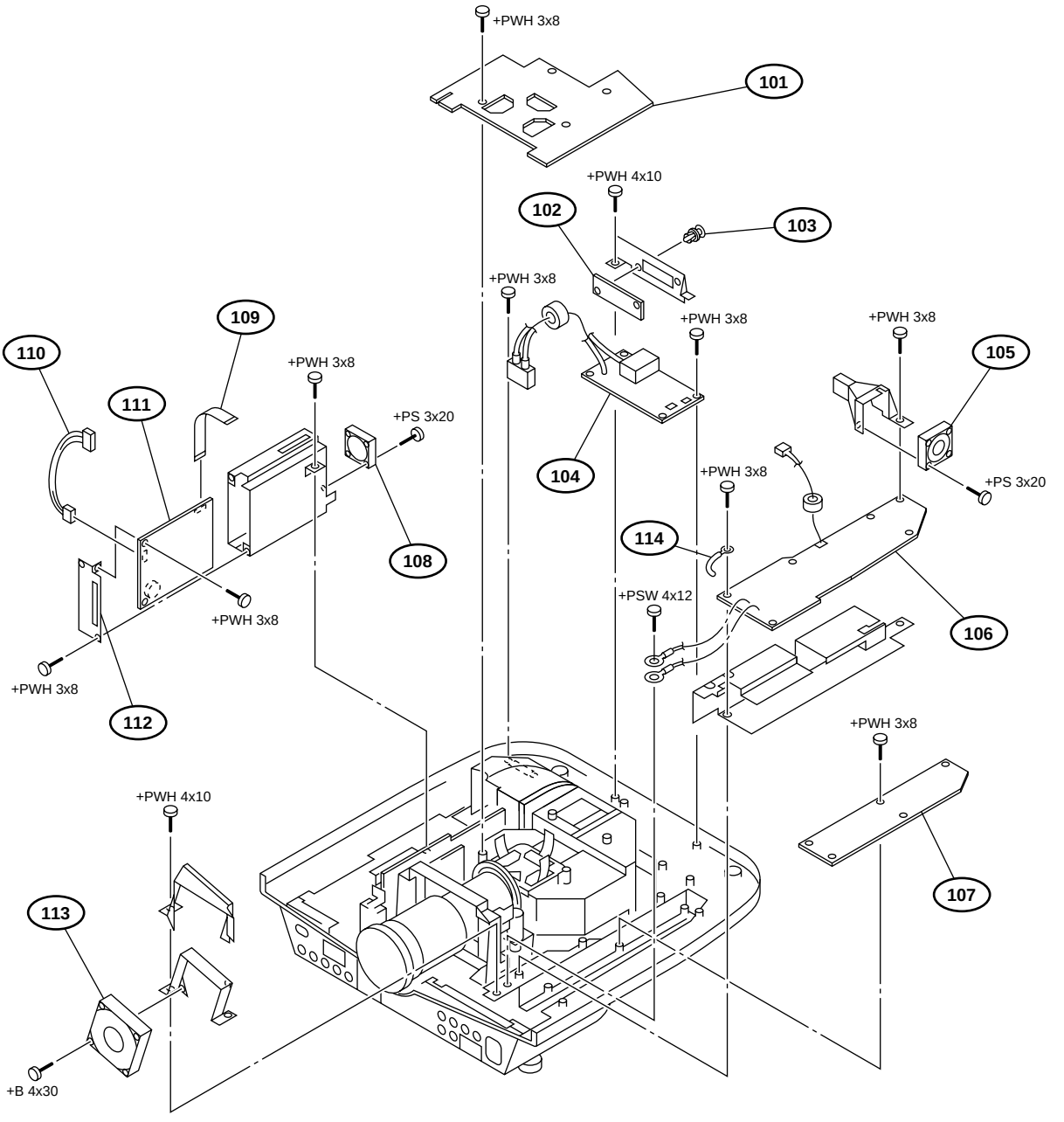
6-2. Exploded Views

1. Cover



No.	Part No.	SP	Description
1	X-4038-862-1	s	CABINET ASSY, TOP
2	4-082-524-01	o	KEY, CURSOR
3	A-1375-217-A	s	MOUNTED CIRCUIT BOARD, H
4	4-082-526-01	s	EMBLEM (FX50)
5	A-1391-108-A	s	MOUNTED CIRCUIT BOARD, S
6	X-4038-863-1	s	COVER ASSY, LENS
7	4-082-520-01	s	SCREW M4, SPECIAL
8	4-033-712-01	s	WASHER
9	4-047-260-01	s	SCREW (B)(4X15)
10	4-033-712-01	s	WASHER
11	1-763-274-11	s	FAN, DC
12	X-4038-869-1	s	PANEL ASSY, FRONT
13	4-082-533-01	s	DOOR (PC-CARD)
14	4-068-063-02	s	SCREW, WASHER
15	4-082-901-01	s	SHEET (H), INSULATING
	7-682-562-09	s	SCREW +B4X10(EP-FE/ZNBK/CM2)
	7-682-903-21	s	SCREW +PWH 3X8
	7-682-904-21	s	SCREW +PWH 4X10
	7-682-970-09	s	SCREW +PSW 4X40(EP-FE/ZNBK/CM2
	7-685-659-79	s	SCREW,+BVTP4X8(EP-FE/ZNBK/CM2)

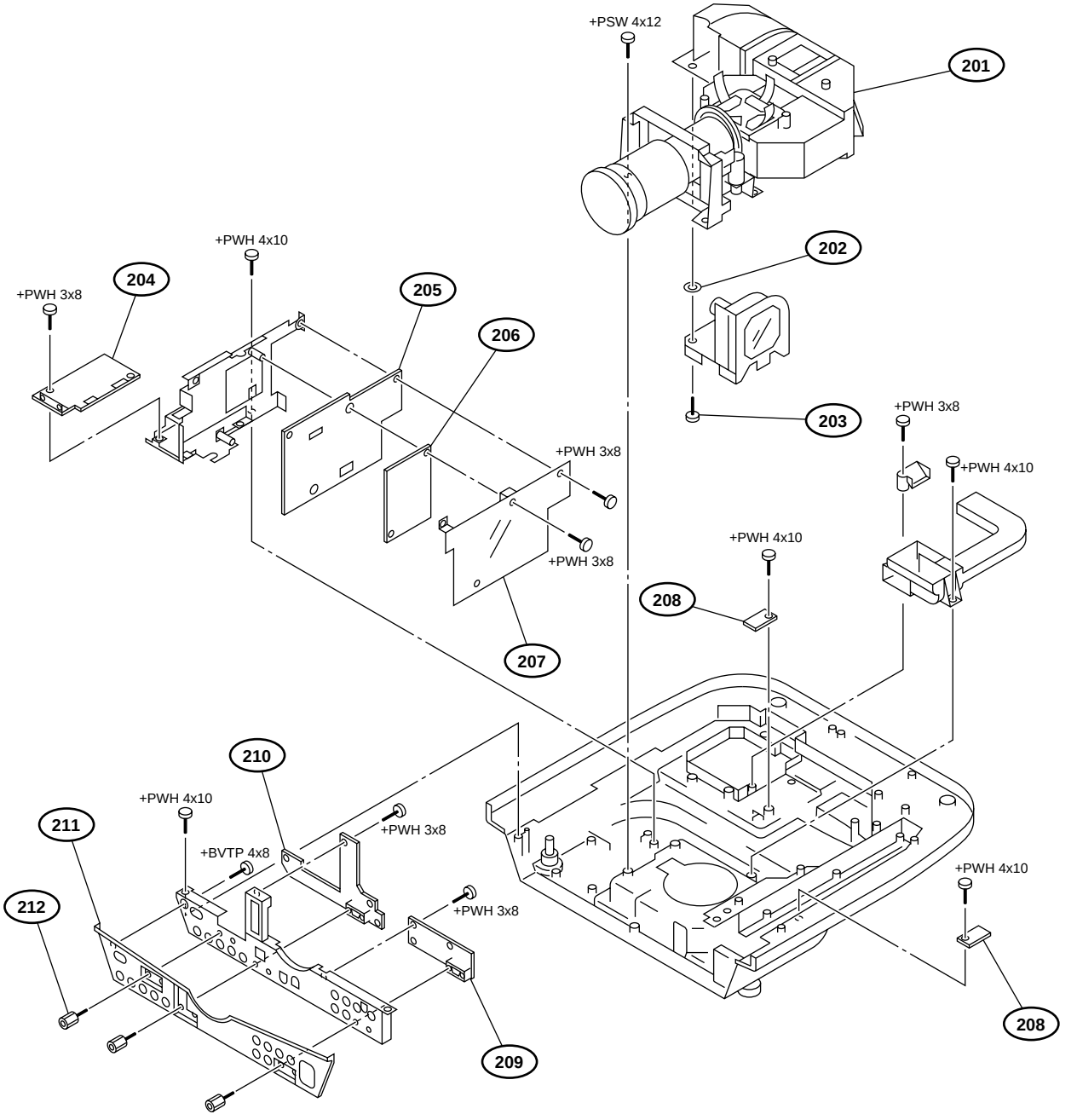
2. Chassis 1



No.	Part No.	SP	Description
101	A-1335-138-A	s	MOUNTED CIRCUIT BOARD, C
102	A-1391-110-A	s	MOUNTED CIRCUIT BOARD, N
103	4-812-134-21	s	RIVET,NYLON 3.5
104 ⚠	1-468-602-11	s	POWER
105	1-763-662-11	s	FAN, DC
106	A-1316-558-A	s	MOUNTED CIRCUIT BOARD, GA
107	A-1316-559-A	s	MOUNTED CIRCUIT BOARD, GB
108	1-763-663-11	s	FAN, DC
109	1-900-259-32	s	CONNECTOR ASSY, FLAT 32P
110	1-900-259-35	o	CONNECTOR ASSY, RELAY (A)

No.	Part No.	SP	Description
111	A-1275-195-A	s	MOUNTED CIRCUIT BOARD, QC
112	X-4038-859-1	s	PLATE (CE) ASSY
113	1-763-070-11	s	FAN, DC
114	3-701-822-00	s	HOLDER, WIRE
	7-682-568-09	s	SCREW +B4X30(EP-FE/ZNBK/CM2)
	7-682-653-09	s	SCREW +PS 3X20(EP-FE/ZNBK/CM2)
	7-682-663-09	s	SCREW +PS 4X12(EP-FE/ZNBK/CM2)
	7-682-903-21	s	SCREW +PWH 3X8
	7-682-904-21	s	SCREW +PWH 4X10

3. Chassis 2



No.	Part No.	SP	Description
201	A-1501-814-A	s	OPTICS UNIT ASSY
202	3-715-526-01	o	WASHER (M3) (PLA)
203	4-066-202-01	s	SCREW, M3
204	A-1136-158-A	s	MOUNTED CIRCUIT BOARD, BC
205	A-1136-157-A	s	MOUNTED CIRCUIT BOARD, BB
206	A-1136-156-A	s	MOUNTED CIRCUIT BOARD, BA
207	4-082-543-01	o	SHEET, B
208	A-1391-108-A	s	MOUNTED CIRCUIT BOARD, S
209	A-1275-197-A	s	MOUNTED CIRCUIT BOARD, QB

No.	Part No.	SP	Description
210	A-1270-445-A	s	MOUNTED CIRCUIT BOARD, QA
211	X-4038-868-1	s	PANEL ASSY, CONNECTOR
212	4-082-508-01	s	PARTS, DIV HOLDING
	7-682-663-09	s	SCREW +PS 4X12(EP-FE/ZNBK/CM2)
	7-682-903-21	s	SCREW +PWH 3X8
	7-682-904-21	s	SCREW +PWH 4X10
	7-685-659-79	s	SCREW,+BVTP4X8(EP-FE/ZNBK/CM2)

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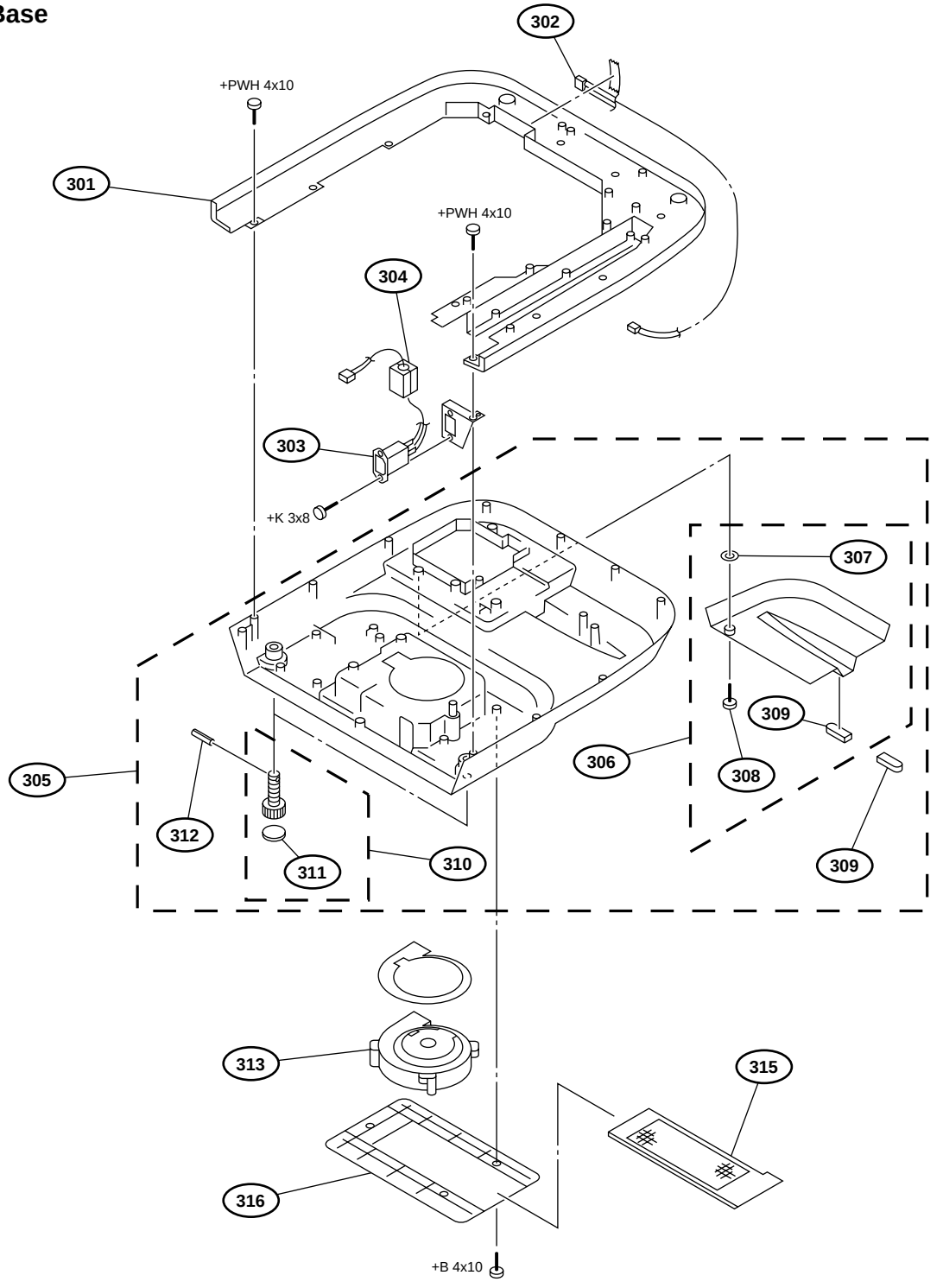
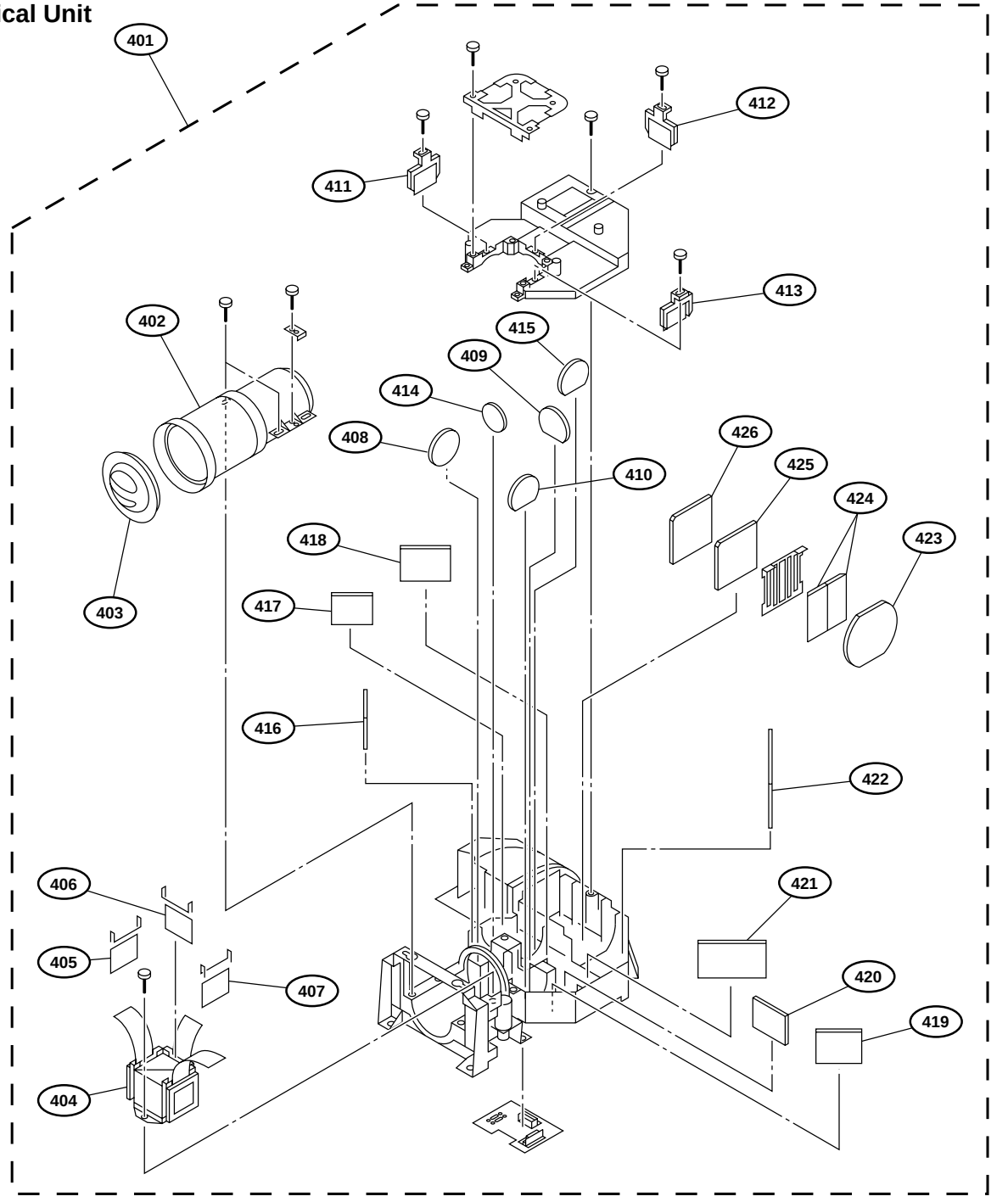
4. Base



No.	Part No.	SP	Description
301	X-4038-866-1	s	BASE (M) ASSY
302	1-900-260-74	o	CONNECTOR ASSY, FUSE
303	⚠ 1-815-295-21	s	INLET, AC (WITH NOISE FILTER)
304	1-543-827-11	s	CLAMP, SLEEVE FERRITE
305	X-4038-861-1	s	BASE ASSY
306	X-4038-864-1	s	COVER ASSY, LAMP
307	4-033-712-01	s	WASHER
308	4-047-260-01	s	SCREW (B)(4X15)
309	4-082-519-01	o	FOOT
310	X-4038-856-1	s	ADJUSTOR ASSY
311	4-082-517-01	o	ADJUSTOR (TOP)
312	4-082-521-01	s	PIN, SPRING
313	1-763-651-11	s	FAN, DC
315	4-082-553-01	s	FILTER
316	4-082-560-01	s	COVER, FILTER
	7-682-248-09	o	SCREW +K 3X8(EP-FE/ZNBK/CM2)
	7-682-562-09	s	SCREW +B4X10(EP-FE/ZNBK/CM2)
	7-682-904-21	s	SCREW +PWH 4X10

5. Optical Unit



No.	Part No.	SP	Description
401	A-1501-814-A	s	OPTICS UNIT ASSY
402	9-885-012-39	s	LENS, PROJECTION
403	9-885-012-55	s	LENS CAP
404	1-758-625-11	s	PRISM BLOCK
405	9-885-012-61	s	OUT-POLORIZER (R)
406	9-885-012-57	s	OUT-POLORIZER (G)
407	9-885-012-59	s	OUT-POLORIZER (B)
408	9-885-012-45	s	LENS, CONVERTER-R-CH
409	9-885-012-44	s	LENS, CONVERTER-G-CH
410	9-885-012-43	s	LENS, CONVERTER-B-CH
411	9-885-012-60	s	IN-POLARIZER (R)
412	9-885-012-56	s	IN-POLARIZER (G)
413	9-885-012-58	s	IN-POLARIZER (B)
414	9-885-012-53	o	LENS B, RELAY
415	9-885-012-52	o	LENS A, RELAY
416	9-885-012-49	o	MIRROR C
417	9-885-012-48	o	MIRROR B
418	9-885-012-47	o	G REFLECTION DICHROIC MIRROR
419	9-885-012-50	o	MIRROR D
420	9-885-012-54	o	GLASS, UVCUT
421	9-885-012-46	o	B REFLECTION DICHROIC MIRROR
422	9-885-012-62	o	MIRROR A
423	9-885-012-51	o	LENS, MAIN CONDENSER
424	9-885-012-42	s	CONVERTER, P/S
425	9-885-012-41	o	FLYEYE, LENS B
426	9-885-012-40	s	FLYEYE, LENS A

6-3. Electrical Parts List for Boards

H BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-1375-217-A	s	MOUNTED CIRCUIT BOARD, H
C2200	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C2201	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
CN2200	1-764-643-21	o	PIN, CONNECTOR (SMD) 11P
CN2201	1-580-055-21	o	PIN, CONNECTOR 2P
D2200	8-719-914-44	s	DIODE DAP202K (DUAL)
D2201	8-719-914-43	s	DIODE DAN202K
D2202	8-719-914-44	s	DIODE DAP202K (DUAL)
D2203	8-719-914-43	s	DIODE DAN202K
D2204	8-719-914-44	s	DIODE DAP202K (DUAL)
D2205	8-719-914-43	s	DIODE DAN202K
D2206	8-719-914-44	s	DIODE DAP202K (DUAL)
D2207	8-719-914-43	s	DIODE DAN202K
D2208	8-719-045-61	s	DIODE SEC1901C (LAMP)
D2209	8-719-045-61	s	DIODE SEC1901C (TEMP)
D2210	8-719-045-53	s	DIODE SEC1801C (POWER)
D2211	8-719-045-51	s	DIODE SEC2422C (ON,STANDBY)
FB2200	1-414-235-22	s	INDUCTOR, FERRITE BEAD
FB2201	1-414-235-22	s	INDUCTOR, FERRITE BEAD
Q2200	8-729-027-38	s	TRANSISTOR DTA144EKA-T146
R2200	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R2201	1-216-037-00	s	RESISTOR,CHIP 330 1/10W(2012)
R2202	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R2203	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R2204	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R2205	1-216-838-11	s	RESISTOR CHIP 27K 1/16W(1608)
R2206	1-216-831-11	s	RESISTOR,CHIP 6.8K 1/16W(1608)
R2207	1-216-834-11	s	RESISTOR,CHIP 12K 1/16W 1608
R2208	1-216-831-11	s	RESISTOR,CHIP 6.8K 1/16W(1608)
R2209	1-216-828-11	s	RESISTOR, CHIP 3.9K 1/16W 1608
R2210	1-216-826-11	s	RESISTOR,CHIP 2.7K 1/16W(1608)
R2211	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R2212	1-216-823-11	s	RESISTOR, CHIP 1.5K 1/16W
R2213	1-216-824-11	s	RESISTOR, CHIP 1.8K 1/16W 1608
R2214	1-216-823-11	s	RESISTOR, CHIP 1.5K 1/16W
R2215	1-216-824-11	s	RESISTOR, CHIP 1.8K 1/16W 1608
R2216	1-216-824-11	s	RESISTOR, CHIP 1.8K 1/16W 1608
S2202	1-771-105-11	s	SWITCH, TACTILE (RESET)
S2203	1-771-105-11	s	SWITCH, TACTILE (MENU)
S2204	1-771-105-11	s	SWITCH, TACTILE (INPUT)
S2207	1-771-105-11	s	SWITCH, TACTILE (ENTER)
S2208	1-771-105-11	s	SWITCH, TACTILE (LENS CONTROL)
S2209	1-771-105-11	s	SWITCH, TACTILE (APA)
S2210	1-771-105-11	s	SWITCH, TACTILE (POWER)
S2211	1-771-215-11	s	SWITCH, TACTILE (UP,DOWN,LEFT,RIGHT)

S BOARD

Ref. No. or Q'ty	Part No.	SP	Description
2pcs	A-1391-108-A	s	MOUNTED CIRCUIT BOARD, S
CN2400	1-580-055-21	o	PIN, CONNECTOR 2P
S2400	1-771-275-11	s	SWITCH, MICRO (COVER)

GA BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-1316-558-A	s	MOUNTED CIRCUIT BOARD, GA
2pcs	1-533-223-11	s	CLIP,FUSE
1pc	4-034-094-01	s	SHEET, INSULATE (PLA)
1pc	4-052-843-01	o	COVER, FUSE
3pcs	4-374-846-01	o	COVER,CAPACITOR,CAP TYPE
8pcs	7-682-648-09	s	SCREW +PS 3X8(EP-FE/ZNBK/CM2)
C1000	⚠ 1-115-166-11	s	CAPACITOR,FILM 0.22MF/250VAC
C1002	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C1003	1-115-156-11	s	CAPACITOR,CERAMIC 1MF/10V(1608
C1004	1-117-227-11	s	CAPACITOR,PE FILM 1.0MF/450V
C1005	1-117-228-11	s	CAPACITOR,FILM 2.2MF/450V
C1006	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C1007	1-131-992-11	s	CAP, CERAMIC 100000PF F 1608
C1008	1-115-416-11	s	CAPACITOR,CERAMIC 1000PF/25V
C1009	1-107-910-11	s	CAPACITOR,ELECT 100MF/50V
C1010	1-127-715-11	s	CAP, CHIP CERAMIC 0.22MF B1608
C1011	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C1012	1-115-416-11	s	CAPACITOR,CERAMIC 1000PF/25V
C1013	1-137-673-11	s	CAPASITOR ELECT 330MF
C1015	1-101-821-00	s	CAPACITOR,CERAMIC 0.002MF/500V
C1016	1-137-673-11	s	CAPASITOR ELECT 330MF
C1017	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C1201	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C1202	1-136-813-11	s	CAPACITOR,PP FILM 680PF/100V
C1203	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C1204	1-115-830-11	s	CAPACITOR ERECT 120MF
C1205	1-127-820-11	s	CAPACITOR, SQUARE CHIP 4.7MF
C1206	1-104-830-11	s	CAPACITOR,ELECT 10MF/50V(AU)
C1208	1-115-830-11	s	CAPACITOR ERECT 120MF
C1209	1-130-495-00	s	CAPACITOR FILM 0.1MF/50V PETP
C1210	1-131-877-11	s	CAP, METALIZED PP FILM
C1211	1-109-994-11	s	CAPACITOR,CHIP CERAMIC 2.2MF B
C1212	1-107-911-11	s	CAPACITOR,ELECT 220MF/50V
C1213	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1214	1-115-737-11	s	CAPACITOR,ELECT 1000MF/10V
C1215	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V
C1216	1-115-789-11	s	CAPACITOR ELECT 1000MF/25V 105
C1217	1-126-396-11	s	CAPACITOR,ELECT 47MF/16V(CHIP)
C1218	1-115-755-11	s	CAPACITOR,ELECT 180MF/16V 105C
C1219	1-115-744-11	s	CAPACITOR, ELECT 3900MF/10V
C1220	1-126-397-11	s	CAPACITOR ELECT 33MF/25V(CHIP)
C1221	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1222	1-131-992-11	s	CAP, CERAMIC 100000PF F 1608
C1223	1-126-397-11	s	CAPACITOR ELECT 33MF/25V(CHIP)
C1224	1-126-396-11	s	CAPACITOR,ELECT 47MF/16V(CHIP)
C1225	1-125-891-11	s	CAPACITOR CERAMIC 0.47MF/10V

GA BOARD

Ref. No. or Q'ty		Part No.	SP	Description
C1226		1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1227		1-126-396-11	s	CAPACITOR,ELECT 47MF/16V(CHIP)
C1228		1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1229		1-164-506-11	s	CAPACITOR,CERAMIC 4.7MF/16V
C1230		1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1231		1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C1232		1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C1233		1-115-762-11	s	CAPACITOR ELECT 820MF/16V(105)
C1235		1-126-396-11	s	CAPACITOR,ELECT 47MF/16V(CHIP)
C1236		1-126-396-11	s	CAPACITOR,ELECT 47MF/16V(CHIP)
C1237		1-131-992-11	s	CAP, CERAMIC 100000PF F 1608
C1238		1-131-992-11	s	CAP, CERAMIC 100000PF F 1608
C1239		1-131-992-11	s	CAP, CERAMIC 100000PF F 1608
C1240		1-131-992-11	s	CAP, CERAMIC 100000PF F 1608
C1241		1-126-396-11	s	CAPACITOR,ELECT 47MF/16V(CHIP)
C1242		1-126-396-11	s	CAPACITOR,ELECT 47MF/16V(CHIP)
C1243		1-126-396-11	s	CAPACITOR,ELECT 47MF/16V(CHIP)
C1244		1-126-396-11	s	CAPACITOR,ELECT 47MF/16V(CHIP)
C1245		1-164-506-11	s	CAPACITOR,CERAMIC 4.7MF/16V
C1246		1-164-506-11	s	CAPACITOR,CERAMIC 4.7MF/16V
C1247		1-164-506-11	s	CAPACITOR,CERAMIC 4.7MF/16V
C1300	⚠	1-113-912-11	s	CAPACITOR,CERAMIC .0047MF/250V
C1301	⚠	1-113-912-11	s	CAPACITOR,CERAMIC .0047MF/250V
C1302		1-104-830-11	s	CAPACITOR,ELECT 10MF/50V(AU)
CN1000		1-691-960-11	o	PIN,CONNECTOR (PC BOARD) 3P
CN1001		1-691-960-11	o	PIN,CONNECTOR (PC BOARD) 3P
CN1002		1-691-960-21	o	PIN, CONNECTOR (PC BOARD) 3P
CN1205		1-564-711-11	o	PIN,CONNECTOR (9P)
CN1206		1-564-506-11	o	PLUG,CONNECTOR (3P)
CN1207		1-815-206-21	o	PIN, CONNECTOR 50P
CN1208		1-580-055-21	o	PIN, CONNECTOR 2P
D1000		8-719-055-30	s	DIODE D1FS4A-TA
D1001		8-719-978-65	s	DIODE DTZ-TT11-15B
D1002	⚠	8-719-066-75	s	DIODE D6SB80
D1003		8-719-073-01	s	DIODE MA111-(K8).S0
D1004		8-719-055-30	s	DIODE D1FS4A-TA
D1005		8-719-056-97	s	DIODE UDZ-TE-17-27B
D1006		8-719-304-63	s	DIODE RM11C (RECTI)
D1007		8-719-056-97	s	DIODE UDZ-TE-17-27B
D1008		8-719-073-52	s	DIODE D2FS6-TA
D1009		8-719-060-06	s	DIODE FSF10A60
D1200		8-719-056-93	s	DIODE UDZ-TE-17-15B
D1201		8-719-055-30	s	DIODE D1FS4A-TA
D1203		8-719-979-64	s	DIODE UF4005PKG23
D1206		8-719-977-81	s	DIODE DTZ33B
D1207		8-719-073-52	s	DIODE D2FS6-TA
D1208		8-719-510-12	s	DIODE D10SC4M
D1209		8-719-056-83	s	DIODE UDZ-TE-17-6.8B
D1210		8-719-510-41	s	DIODE D10SC9M
D1211		8-719-510-12	s	DIODE D10SC4M
D1212		8-719-073-52	s	DIODE D2FS6-TA
D1214		8-719-073-01	s	DIODE MA111-(K8).S0
D1215		8-719-073-01	s	DIODE MA111-(K8).S0
D1216		8-719-073-01	s	DIODE MA111-(K8).S0
D1217		8-719-073-01	s	DIODE MA111-(K8).S0
D1218		8-719-073-01	s	DIODE MA111-(K8).S0
D1219		8-719-073-01	s	DIODE MA111-(K8).S0
D1220		8-719-073-01	s	DIODE MA111-(K8).S0

(GA BOARD)

Ref. No. or Q'ty		Part No.	SP	Description
D1221		8-719-055-30	s	DIODE D1FS4A-TA
D1222		8-719-073-01	s	DIODE MA111-(K8).S0
D1223		8-719-073-01	s	DIODE MA111-(K8).S0
D1224		8-719-073-01	s	DIODE MA111-(K8).S0
D1225		8-719-073-01	s	DIODE MA111-(K8).S0
D1226		8-719-073-01	s	DIODE MA111-(K8).S0
F1000	⚠	1-576-233-11	s	FUSE (H.B.C.) 6.3A/250V
IC1000		8-759-641-00	s	IC MC33262DR2
IC1001		8-759-388-23	s	IC TL431BCDR2
IC1200		8-759-670-30	s	IC MCZ3001D
IC1202		8-759-388-23	s	IC TL431BCDR2
IC1203		8-759-389-95	s	IC MAX797ESE-TE2
IC1205		8-759-100-93	s	IC UPC393G2
IC1206		8-759-643-48	s	IC BA00ASFP-E2
IC1207		8-759-643-48	s	IC BA00ASFP-E2
IC1208		8-759-592-79	s	IC BA00AST
IC1209		8-759-592-79	s	IC BA00AST
L1000	⚠	1-421-944-31	s	TRANSFORMER,LINE FILTER
L1001		1-419-989-11	s	COIL, CHOKE 2830UH
L1002		1-419-302-11	s	COIL, CHOKE 250UH
L1200		1-416-948-21	s	COIL, CHOKE (SMD)
L1201		1-416-948-21	s	COIL, CHOKE (SMD)
L1202		1-416-948-21	s	COIL, CHOKE (SMD)
L1203		1-409-529-41	s	COIL, CHOKE 10UH
L1204		1-416-949-21	s	COIL, CHOKE (SMD)
L1205		1-409-529-41	s	COIL, CHOKE 10UH
PH1200		8-749-010-64	s	PHOTO COUPLER PC123F2
PH1201		8-749-010-64	s	PHOTO COUPLER PC123F2
PH1202		8-749-010-64	s	PHOTO COUPLER PC123F2
Q1000		8-729-101-07	s	TRANSISTOR 2SB798
Q1001		8-729-230-49	s	TRANSISTOR 2SC2712-YG
Q1002		8-729-230-49	s	TRANSISTOR 2SC2712-YG
Q1003		8-729-216-22	s	TRANSISTOR 2SA1162-G
Q1004		8-729-230-49	s	TRANSISTOR 2SC2712-YG
Q1005		8-729-101-07	s	TRANSISTOR 2SB798
Q1006		8-729-807-51	s	TRANSISTOR 2SD1623-S
Q1007		8-729-101-07	s	TRANSISTOR 2SB798
Q1008		8-729-055-36	s	TRANSISTOR SPW20N60S5
Q1009		8-729-216-22	s	TRANSISTOR 2SA1162-G
Q1200		8-729-049-51	s	TRANSISTOR 2SK2876-01MR-F119
Q1201		8-729-049-51	s	TRANSISTOR 2SK2876-01MR-F119
Q1202		8-729-230-49	s	TRANSISTOR 2SC2712-YG
Q1203		8-729-216-22	s	TRANSISTOR 2SA1162-G
Q1204		8-729-230-49	s	TRANSISTOR 2SC2712-YG
Q1205		8-729-048-69	s	TRANSISTOR 2SJ530S-TL
Q1206		8-729-048-69	s	TRANSISTOR 2SJ530S-TL
Q1207		8-729-230-49	s	TRANSISTOR 2SC2712-YG
Q1208		8-729-052-99	s	TRANSISTOR RK3055E-TL
Q1209		8-729-052-99	s	TRANSISTOR RK3055E-TL
Q1210		8-729-048-69	s	TRANSISTOR 2SJ530S-TL
Q1211		1-801-806-11	s	TRANSISTOR DTC144EKA
Q1212		1-801-806-11	s	TRANSISTOR DTC144EKA
Q1213		1-801-806-11	s	TRANSISTOR DTC144EKA
Q1214		8-729-052-99	s	TRANSISTOR RK3055E-TL
Q1215		1-801-806-11	s	TRANSISTOR DTC144EKA
Q1216		8-729-216-22	s	TRANSISTOR 2SA1162-G

(GA BOARD)

Ref. No. or Q'ty		Part No.	SP	Description
R1000	⚠	1-217-786-11	s	RESISTOR, CEMENT 22/5W (FUSE)
R1001	⚠	1-202-847-00	s	RESISTOR,SOLID 560K 1/2W
R1002		1-220-269-11	s	RESISTOR, CHIP 330 1/2W (4532)
R1003		1-220-269-11	s	RESISTOR, CHIP 330 1/2W (4532)
R1004		1-216-828-11	s	RESISTOR, CHIP 3.9K 1/16W 1608
R1005		1-216-829-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R1006		1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R1008		1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R1009		1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1010		1-216-849-11	s	RESISTOR,CHIP 220K 1/16W 1608
R1011		1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R1012		1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1013		1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R1014		1-249-389-11	s	RES,CARBON 4.7 1/4W
R1015		1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1016		1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1017		1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1018		1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1019		1-218-722-11	s	RESISTOR, CHIP 18K 1/16W 1608
R1020		1-218-748-11	s	RESISTOR,CHIP 220K 1/16W(1608)
R1021		1-218-748-11	s	RESISTOR,CHIP 220K 1/16W(1608)
R1022		1-218-747-11	s	RESISTOR,METAL 200K 1/16(1608)
R1023		1-218-747-11	s	RESISTOR,METAL 200K 1/16(1608)
R1024		1-218-744-11	s	RESISTOR,CHIP 150K 1/16W
R1025		1-218-744-11	s	RESISTOR,CHIP 150K 1/16W
R1026		1-218-744-11	s	RESISTOR,CHIP 150K 1/16W
R1030		1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1031		1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1032		1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R1033		1-249-401-11	s	RES,CARBON 47 1/4W (SMALL)
R1034		1-249-401-11	s	RES,CARBON 47 1/4W (SMALL)
R1035		1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1036		1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R1037		1-219-738-11	s	RES, 0.08 (REGISTOR, METAL)
R1038		1-216-846-11	s	RESISTOR,CHIP 120K 1/16W (1608
R1039		1-216-846-11	s	RESISTOR,CHIP 120K 1/16W (1608
R1040		1-216-846-11	s	RESISTOR,CHIP 120K 1/16W (1608
R1041		1-216-846-11	s	RESISTOR,CHIP 120K 1/16W (1608
R1042		1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R1043		1-218-750-11	s	RESISTOR,CHIP 270K 1/16W(1608)
R1044		1-218-748-11	s	RESISTOR,CHIP 220K 1/16W(1608)
R1045		1-218-748-11	s	RESISTOR,CHIP 220K 1/16W(1608)
R1046		1-218-748-11	s	RESISTOR,CHIP 220K 1/16W(1608)
R1047		1-218-748-11	s	RESISTOR,CHIP 220K 1/16W(1608)
R1048		1-218-748-11	s	RESISTOR,CHIP 220K 1/16W(1608)
R1049		1-218-714-11	s	RESISTOR,CHIP 8.2K 1/16W(1608)
R1050		1-218-748-11	s	RESISTOR,CHIP 220K 1/16W(1608)
R1051		1-218-748-11	s	RESISTOR,CHIP 220K 1/16W(1608)
R1052		1-218-748-11	s	RESISTOR,CHIP 220K 1/16W(1608)
R1053		1-218-748-11	s	RESISTOR,CHIP 220K 1/16W(1608)
R1054		1-218-748-11	s	RESISTOR,CHIP 220K 1/16W(1608)
R1055		1-218-744-11	s	RESISTOR,CHIP 150K 1/16W
R1056		1-218-744-11	s	RESISTOR,CHIP 150K 1/16W
R1057		1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R1058		1-218-684-11	s	RESISTOR,CHIP 470 1/16W (1608)
R1097		1-218-644-11	s	RESISTOR,CHIP 10 1/16W
R1098		1-218-644-11	s	RESISTOR,CHIP 10 1/16W
R1200		1-249-389-11	s	RES,CARBON 4.7 1/4W
R1201		1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608

(GA BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R1202	1-218-722-11	s	RESISTOR, CHIP 18K 1/16W 1608
R1203	1-218-682-11	s	RESISTOR,CHIP 390 1/16W (1608)
R1204	1-218-722-11	s	RESISTOR, CHIP 18K 1/16W 1608
R1208	1-218-722-11	s	RESISTOR, CHIP 18K 1/16W 1608
R1209	1-220-338-11	s	RESISTOR,CHIP 330K 1/2W (4532)
R1211	1-220-338-11	s	RESISTOR,CHIP 330K 1/2W (4532)
R1213	1-220-338-11	s	RESISTOR,CHIP 330K 1/2W (4532)
R1214	1-216-797-11	s	RESISTOR,CHIP 10 1/16W 1608
R1215	1-216-797-11	s	RESISTOR,CHIP 10 1/16W 1608
R1216	1-249-417-11	s	RESISTOR,CARBON 1K 1/4W(SMALL)
R1217	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1218	1-216-815-11	s	RESISTOR,CHIP 330 1/16W 1608
R1219	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1220	1-202-933-61	s	RESISTOR, FUSE 0.1 1/2W
R1221	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1222	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R1223	1-216-341-11	s	RESISTOR,METAL FILM 0.22 1W
R1224	1-216-341-11	s	RESISTOR,METAL FILM 0.22 1W
R1225	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R1226	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1227	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R1228	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1229	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1230	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1231	1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R1232	1-216-820-11	s	RESISTOR, CHIP 820 1/16W 1608
R1233	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R1234	1-216-818-11	s	RESISTOR, CHIP 560 1/16W 1608
R1235	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1236	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R1237	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R1238	1-218-684-11	s	RESISTOR,CHIP 470 1/16W (1608)
R1239	1-218-712-11	s	RESISTOR,METAL 6.8K 1/16W
R1240	1-218-700-11	s	RESISTOR,CHIP 2.2K 1/16W(1608)
R1241	1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R1242	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1243	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1244	1-216-827-11	s	RESISTOR, CHIP 3.3K 1/16W 1608
R1245	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R1246	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R1247	1-216-827-11	s	RESISTOR, CHIP 3.3K 1/16W 1608
R1248	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1249	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R1250	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R1251	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1252	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1253	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R1254	1-216-827-11	s	RESISTOR, CHIP 3.3K 1/16W 1608
R1255	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1256	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1257	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1258	1-218-710-11	s	RESISTOR,CHIP 5.6K 1/16W(1608)
R1259	1-218-700-11	s	RESISTOR,CHIP 2.2K 1/16W(1608)
R1260	1-218-722-11	s	RESISTOR, CHIP 18K 1/16W 1608
R1261	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1262	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1263	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R1264	1-240-217-11	s	RESISTOR,SQURE TYPE 15M
R1265	1-218-710-11	s	RESISTOR,CHIP 5.6K 1/16W(1608)

(GA BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R1266	1-218-700-11	s	RESISTOR,CHIP 2.2K 1/16W(1608)
R1267	1-218-722-11	s	RESISTOR, CHIP 18K 1/16W 1608
R1268	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1269	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1270	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1271	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1272	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1273	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1274	1-216-839-11	s	RESISTOR,CHIP 33K 1/16W 1608
R1275	1-216-839-11	s	RESISTOR,CHIP 33K 1/16W 1608
R1276	1-216-839-11	s	RESISTOR,CHIP 33K 1/16W 1608
R1277	1-216-839-11	s	RESISTOR,CHIP 33K 1/16W 1608
R1278	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R1279	1-218-713-11	s	RESISTOR,METAL 7.5K 1/16W
R1280	1-218-722-11	s	RESISTOR, CHIP 18K 1/16W 1608
R1281	1-218-707-11	s	RESISTOR,CHIP 4.3K 1/16W(1608)
R1282	1-218-678-11	s	RESISTOR CHIP 270 1/16W (1608)
R1283	1-218-730-11	s	RESISTOR METAL FILM CHIP 39K
R1284	1-218-707-11	s	RESISTOR,CHIP 4.3K 1/16W(1608)
R1285	1-218-678-11	s	RESISTOR CHIP 270 1/16W (1608)
R1286	1-218-730-11	s	RESISTOR METAL FILM CHIP 39K
R1287	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R1288	1-218-696-11	s	RESISTOR,CHIP 1.5K 1/16W(1608)
R1289	1-218-730-11	s	RESISTOR METAL FILM CHIP 39K
R1290	1-218-729-11	s	RESISTOR,CHIP 36K 1/16W(1608)
R1291	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R1292	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R1293	1-218-727-11	s	RESISTOR,CHIP 30K 1/16W(1608)
R1294	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R1295	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R1296	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R1298	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1299	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1300	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1302	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1303	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R1312	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R1313	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R1314	1-218-730-11	s	RESISTOR METAL FILM CHIP 39K
R1315	1-218-730-11	s	RESISTOR METAL FILM CHIP 39K
RV1200	1-230-866-11	s	RESISTOR ADJ 470 (METAL)(3.8)
RV1201	1-230-866-11	s	RESISTOR ADJ 470 (METAL)(3.8)
RV1202	1-230-866-11	s	RESISTOR ADJ 470 (METAL)(3.8)
RV1203	1-230-866-11	s	RESISTOR ADJ 470 (METAL)(3.8)
RY1000 ⚠	1-755-395-11	s	RELAY (AC POWER)
T1200	1-435-855-11	s	TRANSFORMER, CONVERTER (SRT)
VD1000 ⚠	1-801-073-41	s	VARISTOR ERZV14D471

GB BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-1316-559-A	s	MOUNTED CIRCUIT BOARD, GB
5pcs	7-682-648-09	s	SCREW +PS 3X8(EP-FE/ZNBK/CM2)
C1400	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V
C1401	1-136-479-11	s	CAPACITOR FILM 0.001MF/100V PP
C1402	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V
C1403	1-115-830-11	s	CAPACITOR ERECT 120MF
C1404	1-127-820-11	s	CAPACITOR, SQUARE CHIP 4.7MF
C1405	1-104-830-11	s	CAPACITOR,ELECT 10MF/50V(AU)
C1406	1-115-830-11	s	CAPACITOR ERECT 120MF
C1407	1-130-495-00	s	CAPACITOR FILM 0.1MF/50V PETP
C1408	1-117-827-11	s	CAP, METALIZED PP FILM 3000PF
C1409	1-109-994-11	s	CAPACITOR,CHIP CERAMIC 2.2MF B
C1410	1-107-911-11	s	CAPACITOR,ELECT 220MF/50V
C1411	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1412	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1413	1-115-760-11	s	CAPACITOR,ELECT 390MF/16V
C1414	1-115-734-11	s	CAPACITOR ELECT 680MF/10V(105)
C1415	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1416	1-115-760-11	s	CAPACITOR,ELECT 390MF/16V
C1417	1-115-734-11	s	CAPACITOR ELECT 680MF/10V(105)
C1418	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1419	1-131-992-11	s	CAP, CERAMIC 100000PF F 1608
C1420	1-126-396-11	s	CAPACITOR,ELECT 47MF/16V(CHIP)
C1422	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1429	1-126-396-11	s	CAPACITOR,ELECT 47MF/16V(CHIP)
C1431	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1432	1-115-737-11	s	CAPACITOR,ELECT 1000MF/10V
C1435	1-126-396-11	s	CAPACITOR,ELECT 47MF/16V(CHIP)
C1436	1-126-396-11	s	CAPACITOR,ELECT 47MF/16V(CHIP)
C1600	1-131-992-11	s	CAP, CERAMIC 100000PF F 1608
C1601	1-126-396-11	s	CAPACITOR,ELECT 47MF/16V(CHIP)
C1604	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1605	1-126-396-11	s	CAPACITOR,ELECT 47MF/16V(CHIP)
C1608	1-126-396-11	s	CAPACITOR,ELECT 47MF/16V(CHIP)
C1609	1-126-396-11	s	CAPACITOR,ELECT 47MF/16V(CHIP)
C1610	1-126-396-11	s	CAPACITOR,ELECT 47MF/16V(CHIP)
C1611	1-126-394-11	s	CAPACITOR,ELECT 10MF/16V(CHIP)
C1612	1-126-394-11	s	CAPACITOR,ELECT 10MF/16V(CHIP)
C1613	1-126-394-11	s	CAPACITOR,ELECT 10MF/16V(CHIP)
C1614	1-164-505-11	s	CAPACITOR,CHIP CERAMIC 2.2MF
C1617	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V
C1618	1-126-396-11	s	CAPACITOR,ELECT 47MF/16V(CHIP)
C1619	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1620	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C1621	1-126-396-11	s	CAPACITOR,ELECT 47MF/16V(CHIP)
CN1400	1-691-960-21	o	PIN, CONNECTOR (PC BOARD) 3P
CN1401	1-564-710-11	o	PIN,CONNECTOR (8P)
CN1402	1-564-707-11	o	PIN,CONNECTOR (5P)
CN1403	1-564-705-11	o	PIN,CONNECTOR (3P)
CN1600	1-564-709-11	o	PIN,CONNECTOR(7P)
CN1601	1-564-708-11	o	PIN,CONNECTOR (6P)
CN1602	1-691-551-11	o	PIN, CONNECTOR (SMD) 8P
CN1604	1-564-708-11	o	PIN,CONNECTOR (6P)
CN1605	1-564-710-11	o	PIN,CONNECTOR (8P)
D1400	8-719-056-93	s	DIODE UDZ-TE-17-15B
D1401	8-719-055-30	s	DIODE D1FS4A-TA
D1402	8-719-979-64	s	DIODE UF4005PKG23
D1405	8-719-977-81	s	DIODE DTZ33B

(GB BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
D1406	8-719-073-52	s	DIODE D2FS6-TA
D1407	8-719-510-12	s	DIODE D10SC4M
D1408	8-719-510-12	s	DIODE D10SC4M
D1409	8-719-158-15	s	DIODE RD5.6SB
D1410	8-719-073-01	s	DIODE MA111-(K8).S0
D1413	8-719-055-30	s	DIODE D1FS4A-TA
D1414	8-719-073-01	s	DIODE MA111-(K8).S0
D1416	8-719-073-01	s	DIODE MA111-(K8).S0
D1417	8-719-073-01	s	DIODE MA111-(K8).S0
D1600	8-719-158-15	s	DIODE RD5.6SB
D1601	8-719-073-01	s	DIODE MA111-(K8).S0
D1602	8-719-158-15	s	DIODE RD5.6SB
D1603	8-719-158-15	s	DIODE RD5.6SB
D1604	8-719-158-15	s	DIODE RD5.6SB
D1605	8-719-073-01	s	DIODE MA111-(K8).S0
D1606	8-719-073-01	s	DIODE MA111-(K8).S0
D1608	8-719-073-01	s	DIODE MA111-(K8).S0
IC1400	8-759-670-30	s	IC MCZ3001D
IC1401	8-759-388-23	s	IC TL431BCDR2
IC1402	8-759-592-79	s	IC BA00AST
IC1405	8-759-485-63	s	IC MAX1626ESA-TE2
IC1406	8-759-100-93	s	IC UPC393G2
IC1600	8-759-592-79	s	IC BA00AST
IC1603	8-759-834-83	s	IC ISPLSI2032VE-110LT44-1709GB
IC1605	8-759-633-10	s	IC M54544AL
IC1606	8-759-633-10	s	IC M54544AL
IC1607	8-759-633-10	s	IC M54544AL
IC1608	8-759-460-72	s	IC BA033FP
IC1620	8-759-643-48	s	IC BA00ASFP-E2
L1401	1-416-865-11	s	COIL, CHOKE
L1402	1-409-529-41	s	COIL, CHOKE 10UH
PH1400	8-749-010-64	s	PHOTO COUPLER PC123F2
PH1401	8-749-010-64	s	PHOTO COUPLER PC123F2
PH1402	8-749-010-64	s	PHOTO COUPLER PC123F2
Q1400	8-729-049-51	s	TRANSISTOR 2SK2876-01MR-F119
Q1401	8-729-049-51	s	TRANSISTOR 2SK2876-01MR-F119
Q1402	8-729-230-49	s	TRANSISTOR 2SC2712-YG
Q1403	8-729-216-22	s	TRANSISTOR 2SA1162-G
Q1404	8-729-230-49	s	TRANSISTOR 2SC2712-YG
Q1405	8-729-230-49	s	TRANSISTOR 2SC2712-YG
Q1406	8-729-048-69	s	TRANSISTOR 2SJ530S-TL
Q1407	8-729-048-69	s	TRANSISTOR 2SJ530S-TL
Q1408	8-729-048-69	s	TRANSISTOR 2SJ530S-TL
Q1410	8-729-230-49	s	TRANSISTOR 2SC2712-YG
Q1461	8-729-230-49	s	TRANSISTOR 2SC2712-YG
Q1462	8-729-230-49	s	TRANSISTOR 2SC2712-YG
R1400	1-249-389-11	s	RES,CARBON 4.7 1/4W
R1401	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R1402	1-218-714-11	s	RESISTOR,CHIP 8.2K 1/16W(1608)
R1403	1-218-682-11	s	RESISTOR,CHIP 390 1/16W (1608)
R1404	1-218-722-11	s	RESISTOR, CHIP 18K 1/16W 1608
R1405	1-218-722-11	s	RESISTOR, CHIP 18K 1/16W 1608
R1406	1-220-338-11	s	RESISTOR,CHIP 330K 1/2W (4532)
R1407	1-220-338-11	s	RESISTOR,CHIP 330K 1/2W (4532)
R1408	1-220-338-11	s	RESISTOR,CHIP 330K 1/2W (4532)
R1409	1-216-797-11	s	RESISTOR,CHIP 10 1/16W 1608

(GB BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R1410	1-216-797-11	s	RESISTOR,CHIP 10 1/16W 1608
R1411	1-249-417-11	s	RESISTOR,CARBON 1K 1/4W(SMALL)
R1412	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1413	1-216-815-11	s	RESISTOR,CHIP 330 1/16W 1608
R1414	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1416	1-202-933-61	s	RESISTOR, FUSE 0.1 1/2W
R1417	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1418	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R1420	1-216-341-11	s	RESISTOR,METAL FILM 0.22 1W
R1421	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R1422	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1423	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R1424	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1425	1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R1426	1-216-820-11	s	RESISTOR, CHIP 820 1/16W 1608
R1427	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1428	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R1429	1-216-817-11	s	RESISTOR,CHIP 470 1/16W 1608
R1430	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1431	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1432	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1433	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1434	1-216-827-11	s	RESISTOR, CHIP 3.3K 1/16W 1608
R1435	1-216-839-11	s	RESISTOR,CHIP 33K 1/16W 1608
R1436	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R1437	1-218-685-11	s	RESISTOR,CHIP 510 1/16W
R1438	1-218-694-11	s	RESISTOR,CHIP 1.2K1/16W(1608)
R1441	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R1443	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R1444	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1445	1-218-720-11	s	RESISTOR,CHIP 15K 1/16W(1608)
R1450	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1451	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R1452	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1455	1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R1456	1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R1457	1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R1458	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R1459	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1460	1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R1462	1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R1463	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R1464	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R1465	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R1466	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R1470	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1471	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1476	1-240-217-11	s	RESISTOR,SQURE TYPE 15M
R1477	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1478	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1479	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1600	1-216-843-11	s	RESISTOR,CHIP 68K 1/16W (1608)
R1601	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1602	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R1603	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R1604	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R1605	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R1618	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R1619	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608

(GB BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R1620	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R1621	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R1625	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R1626	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R1627	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R1628	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R1629	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R1630	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R1631	1-216-353-00	s	RESISTOR,METAL FILM 2.2/1W
R1632	1-216-353-00	s	RESISTOR,METAL FILM 2.2/1W
R1633	1-216-353-00	s	RESISTOR,METAL FILM 2.2/1W
R1634	1-216-839-11	s	RESISTOR,CHIP 33K 1/16W 1608
R1636	1-218-728-11	s	RESISTOR,CHIP 33K 1/16W
R1637	1-218-714-11	s	RESISTOR,CHIP 8.2K 1/16W(1608)
R1638	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R1640	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R1641	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R1650	1-218-720-11	s	RESISTOR,CHIP 15K 1/16W(1608)
R1651	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1652	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R1698	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R1699	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
RV1400	1-230-866-11	s	RESISTOR ADJ 470 (METAL)(3.8)
T1400	1-435-856-11	s	TRANSFORMER, CONVERTER (SRT)

C BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-1335-138-A	s	MOUNTED CIRCUIT BOARD, C
C5000	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C5001	1-126-205-11	s	CAPACITOR,ELECT 47M/6.3
C5002	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5003	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5004	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5007	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C5008	1-128-401-11	s	CAPACITOR,ELECT100MF/25V(CHIP)
C5009	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C5010	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C5011	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5012	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5017	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5018	1-109-982-11	s	CAPACITOR,CHIP CERAMIC 1MF/10V
C5019	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5020	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5021	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C5022	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C5024	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V
C5025	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V
C5026	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C5027	1-125-817-11	s	CAPACITOR, CERAMIC 10MF/6.3V
C5028	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V
C5029	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C5030	1-126-205-11	s	CAPACITOR,ELECT 47M/6.3
C5031	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C5032	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C5033	1-126-205-11	s	CAPACITOR,ELECT 47M/6.3
C5038	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C5039	1-126-205-11	s	CAPACITOR,ELECT 47M/6.3
C5040	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5046	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V
C5047	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C5048	1-163-133-00	s	CAPACITOR,CHIP CERAMIC 470PF
C5049	1-163-227-11	s	CAPACITOR CERAMIC 10PF/50V(CH)
C5050	1-163-227-11	s	CAPACITOR CERAMIC 10PF/50V(CH)
C5051	1-124-778-00	s	CAPACITOR,ELECT 22MF/6.3V
C5052	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5053	1-124-778-00	s	CAPACITOR,ELECT 22MF/6.3V
C5054	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5055	1-124-778-00	s	CAPACITOR,ELECT 22MF/6.3V
C5056	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V
C5057	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5058	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5059	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5060	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5082	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5083	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5084	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5086	1-126-205-11	s	CAPACITOR,ELECT 47M/6.3
C5201	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5202	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5227	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5228	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5229	1-107-682-11	s	CAPACITOR,CHIP 1MF/16V (3216)
C5230	1-107-682-11	s	CAPACITOR,CHIP 1MF/16V (3216)
C5231	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5232	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF

(C BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C5233	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5234	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5235	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5236	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5237	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5300	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C5301	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C5305	1-126-602-11	s	CAPACITOR,ELECT 3.3MF/50V(CHIP
C5308	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5309	1-109-982-11	s	CAPACITOR,CHIP CERAMIC 1MF/10V
C5310	1-115-340-11	s	CAPACITOR CERAMIC 0.22MF/25V B
C5311	1-115-340-11	s	CAPACITOR CERAMIC 0.22MF/25V B
C5312	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C5313	1-135-347-11	s	CAP, SOLID ELECT 82MF
C5316	1-126-602-11	s	CAPACITOR,ELECT 3.3MF/50V(CHIP
C5317	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5318	1-115-339-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C5319	1-115-340-11	s	CAPACITOR CERAMIC 0.22MF/25V B
C5320	1-124-779-00	s	CAPACITOR,ELECT 10MF/16V
C5321	1-115-340-11	s	CAPACITOR CERAMIC 0.22MF/25V B
C5324	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5325	1-115-339-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C5326	1-115-340-11	s	CAPACITOR CERAMIC 0.22MF/25V B
C5327	1-115-339-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C5328	1-128-401-11	s	CAPACITOR,ELECT100MF/25V(CHIP)
C5329	1-126-602-11	s	CAPACITOR,ELECT 3.3MF/50V(CHIP
C5330	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5331	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C5332	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C5333	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5335	1-115-339-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C5336	1-115-339-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C5337	1-115-340-11	s	CAPACITOR CERAMIC 0.22MF/25V B
C5339	1-115-340-11	s	CAPACITOR CERAMIC 0.22MF/25V B
C5341	1-115-340-11	s	CAPACITOR CERAMIC 0.22MF/25V B
C5342	1-115-339-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C5343	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C5344	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C5346	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5349	1-128-400-11	s	CAPACITOR, ELECT 47MF/25V
C5350	1-115-339-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C5351	1-124-778-00	s	CAPACITOR,ELECT 22MF/6.3V
C5352	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5354	1-115-340-11	s	CAPACITOR CERAMIC 0.22MF/25V B
C5355	1-115-339-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C5356	1-115-339-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C5357	1-115-339-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C5358	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C5359	1-128-400-11	s	CAPACITOR, ELECT 47MF/25V
C5360	1-128-400-11	s	CAPACITOR, ELECT 47MF/25V
C5361	1-128-400-11	s	CAPACITOR, ELECT 47MF/25V
C5362	1-115-339-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C5363	1-115-339-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C5364	1-128-401-11	s	CAPACITOR,ELECT100MF/25V(CHIP)
C5365	1-115-339-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C5366	1-128-401-11	s	CAPACITOR,ELECT100MF/25V(CHIP)
C5367	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5368	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C5369	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V

(C BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C5370	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5371	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C5372	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C5374	1-115-339-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C5376	1-115-339-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C5377	1-115-339-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C5378	1-115-339-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C5381	1-115-339-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C5382	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C5383	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C5384	1-115-339-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C5385	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C5386	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C5389	1-124-778-00	s	CAPACITOR,ELECT 22MF/6.3V
C5390	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5392	1-124-778-00	s	CAPACITOR,ELECT 22MF/6.3V
C5393	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5395	1-115-339-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C5396	1-115-339-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C5397	1-115-339-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C5398	1-115-339-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C5399	1-115-339-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C5400	1-115-339-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C5401	1-115-339-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C5402	1-115-339-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C5403	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C5404	1-109-982-11	s	CAPACITOR,CHIP CERAMIC 1MF/10V
C5405	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C5407	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5408	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5409	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5410	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5411	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5412	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5413	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5414	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5415	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5416	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5417	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5418	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5701	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5702	1-109-982-11	s	CAPACITOR,CHIP CERAMIC 1MF/10V
C5703	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5705	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5706	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5707	1-131-998-11	s	CAP, SOLID ELECT 82MF 6.3 V
C5708	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5709	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5710	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5711	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5713	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5714	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5715	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5716	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5717	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5718	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5719	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5720	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5721	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF

(C BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C5722	1-131-998-11	s	CAP, SOLID ELECT 82MF 6.3 V
C5723	1-131-998-11	s	CAP, SOLID ELECT 82MF 6.3 V
C5724	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5725	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5726	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5727	1-162-910-11	s	CAPACITOR,CERAMIC 5PF/50V 1608
C5728	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5729	1-126-205-11	s	CAPACITOR,ELECT 47M/6.3
C5730	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5731	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5732	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
CN5000	1-785-306-21	o	CONNECTOR, BOARD TO BOARD
CN5003	1-815-339-21	o	PIN, CONNECTOR
CN5005	1-764-643-21	o	PIN, CONNECTOR (SMD) 11P
CN5006	1-580-789-21	o	PIN,CONNECTOR (SMD) 6P
CN5007	1-569-775-21	o	PIN, CONNECTOR 5P
CN5008	1-580-057-11	o	PIN,CONNECTOR 4P
CN5009	1-785-306-21	o	CONNECTOR, BOARD TO BOARD
CN5010	1-691-551-11	o	PIN, CONNECTOR (SMD) 8P
CN5012	1-580-756-21	o	PIN, CONNECTOR 7P
CN5013	1-785-306-21	o	CONNECTOR, BOARD TO BOARD
CN5015	1-785-306-21	o	CONNECTOR, BOARD TO BOARD
CN5017	1-580-056-21	o	PIN,CONNECTOR 3P
CN5019	1-580-055-21	o	PIN, CONNECTOR 2P
CN5300	1-774-932-21	s	CONNECTOR, FFC/FPC
CN5301	1-774-932-21	s	CONNECTOR, FFC/FPC
CN5302	1-774-932-21	s	CONNECTOR, FFC/FPC
CN5701	1-770-621-21	s	PIN, CONNECTOR 4P
D5001	8-719-056-83	s	DIODE UDZ-TE-17-6.8B
D5002	8-719-056-83	s	DIODE UDZ-TE-17-6.8B
D5003	8-719-056-83	s	DIODE UDZ-TE-17-6.8B
D5004	8-719-056-83	s	DIODE UDZ-TE-17-6.8B
D5005	8-719-056-83	s	DIODE UDZ-TE-17-6.8B
D5006	8-719-056-83	s	DIODE UDZ-TE-17-6.8B
D5007	8-719-056-83	s	DIODE UDZ-TE-17-6.8B
D5008	8-719-056-83	s	DIODE UDZ-TE-17-6.8B
D5011	8-719-056-83	s	DIODE UDZ-TE-17-6.8B
D5012	8-719-056-83	s	DIODE UDZ-TE-17-6.8B
D5013	8-719-056-83	s	DIODE UDZ-TE-17-6.8B
D5014	8-719-056-83	s	DIODE UDZ-TE-17-6.8B
D5015	8-719-056-83	s	DIODE UDZ-TE-17-6.8B
D5016	8-719-056-83	s	DIODE UDZ-TE-17-6.8B
D5017	8-719-056-83	s	DIODE UDZ-TE-17-6.8B
D5018	8-719-914-43	s	DIODE DAN202K
D5020	8-719-056-83	s	DIODE UDZ-TE-17-6.8B
D5021	8-719-914-43	s	DIODE DAN202K
D5022	8-719-914-43	s	DIODE DAN202K
D5023	8-719-914-43	s	DIODE DAN202K
D5024	8-719-914-43	s	DIODE DAN202K
D5025	8-719-024-77	s	DIODE HN1D03FU-TE85L
D5026	8-719-024-77	s	DIODE HN1D03FU-TE85L
D5201	8-719-914-43	s	DIODE DAN202K
D5227	8-719-024-77	s	DIODE HN1D03FU-TE85L
D5301	8-719-977-95	s	DIODE DTZ2.4B-TT11(5MA)
D5701	8-719-914-43	s	DIODE DAN202K
FB5003	1-414-234-11	s	INDUCTOR,FERRITE BEAD
FB5004	1-414-234-11	s	INDUCTOR,FERRITE BEAD

(C BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
FB5005	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5006	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5227	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5301	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5302	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5303	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5306	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5307	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5308	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5310	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5311	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5312	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5313	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5315	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5316	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5317	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5318	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5319	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5320	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5323	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5324	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5325	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5326	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5327	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5328	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5329	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5330	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5333	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5334	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5335	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5336	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5337	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5338	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5339	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5340	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5343	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5701	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5702	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5703	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5704	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5705	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5706	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5707	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5708	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5709	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5710	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5711	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FL5000	1-239-899-21	s	FILTER, CHIP EMI
FL5005	1-239-899-21	s	FILTER, CHIP EMI
FL5006	1-239-899-21	s	FILTER, CHIP EMI
FL5007	1-239-899-21	s	FILTER, CHIP EMI
FL5701	1-234-011-11	s	FILTER, EMI
FL5702	1-234-011-11	s	FILTER, EMI
FL5703	1-234-011-11	s	FILTER, EMI
IC5000	8-759-460-72	s	IC BA033FP
IC5001	8-759-660-98	s	IC NC7SZ02P5
IC5003	8-759-259-77	s	IC PQ20VZ5U
IC5004	8-759-157-17	s	IC PQ05SZ1U

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(C BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
IC5005	8-759-447-77	s	IC TC7WH74FU (TR12R)
IC5006	8-759-485-79	s	IC TC7SET08FU (TE85L)
IC5010	8-759-837-47	s	IC SN-IRMF2-A0T-OTP
IC5012	8-759-277-63	s	IC TC7W14FU (TE12R)
IC5013	8-759-460-72	s	IC BA033FP
IC5014	8-759-533-85	s	IC L88M05T-FA-TL
IC5015	8-759-331-71	s	IC NJM4558E (TE2)
IC5016	8-759-157-17	s	IC PQ05SZ1U
IC5017	8-759-582-91	s	IC S-80842ANNP-ED6-T2
IC5018	8-759-544-01	s	IC S-80828ANNP-EDR-T2
IC5020	8-759-658-90	s	IC 24LC128T-I/SN
IC5021	8-759-648-10	s	IC HD64F2633TE
IC5024	8-759-542-46	s	IC M62392FP
IC5025	8-759-485-79	s	IC TC7SET08FU (TE85L)
IC5201	8-759-277-63	s	IC TC7W14FU (TE12R)
IC5227	8-759-185-75	s	IC TC74VHC123AF (EL)
IC5228	8-759-082-58	s	IC TC7W08FU
IC5229	8-759-272-27	s	IC 74VHC04SJ
IC5230	8-759-083-94	s	IC TC7W74FU
IC5231	8-752-072-81	s	IC CXA1875AM
IC5232	8-759-524-04	s	IC TC74VHC125FT (EL)
IC5233	8-759-082-59	s	IC TC7W32FU
IC5234	8-759-524-04	s	IC TC74VHC125FT (EL)
IC5235	8-759-524-04	s	IC TC74VHC125FT (EL)
IC5300	8-759-351-63	s	IC TA7812F (TE16L)
IC5301	8-759-584-86	s	IC M52749FP-TP
IC5303	8-752-093-18	s	IC CXA3512R-T6
IC5304	8-752-093-18	s	IC CXA3512R-T6
IC5305	8-752-093-18	s	IC CXA3512R-T6
IC5306	8-752-093-18	s	IC CXA3512R-T6
IC5307	8-752-093-18	s	IC CXA3512R-T6
IC5308	8-752-093-18	s	IC CXA3512R-T6
IC5701	8-759-824-29	s	IC CXD9607GB
IC5702	8-759-544-01	s	IC S-80828ANNP-EDR-T2
IC5703	8-759-475-43	s	IC TC74LCX125FT(EL)
IC5704	8-759-645-13	s	IC ADV7123KST140
IC5705	8-759-684-72	s	IC M24C64-WMN6T(A)
IC5707	8-719-985-01	s	IC LM385M-1.2
IC5708	8-759-447-77	s	IC TC7WH74FU (TR12R)
IC5710	8-759-660-98	s	IC NC7SZ02P5
IC5711	8-759-472-59	s	IC 74VHC541MTCX
IC5712	8-759-472-59	s	IC 74VHC541MTCX
IC5713	8-759-472-59	s	IC 74VHC541MTCX
IC5714	8-759-449-58	s	IC LM7131BCM5X
L5000	1-409-556-11	s	COIL, CHOKE 47UH
L5001	1-409-556-11	s	COIL, CHOKE 47UH
L5300	1-410-381-11	s	INDUCTOR,CHIP 10UH (3225)
L5301	1-410-393-11	s	INDUCTOR,CHIP 100UH (3225)
L5302	1-410-369-11	s	INDUCTOR,CHIP 1UH (3225)
L5303	1-410-369-11	s	INDUCTOR,CHIP 1UH (3225)
L5304	1-410-369-11	s	INDUCTOR,CHIP 1UH (3225)
L5305	1-410-369-11	s	INDUCTOR,CHIP 1UH (3225)
L5306	1-410-369-11	s	INDUCTOR,CHIP 1UH (3225)
L5307	1-410-369-11	s	INDUCTOR,CHIP 1UH (3225)
Q5000	8-729-202-38	s	TRANSISTOR 2SC3326N-A
Q5001	8-729-230-49	s	TRANSISTOR 2SC2712-YG
Q5002	8-729-202-38	s	TRANSISTOR 2SC3326N-A
Q5003	8-729-230-49	s	TRANSISTOR 2SC2712-YG
Q5004	8-729-230-49	s	TRANSISTOR 2SC2712-YG

(C BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
Q5005	8-729-202-38	s	TRANSISTOR 2SC3326N-A
Q5006	8-729-202-38	s	TRANSISTOR 2SC3326N-A
Q5007	8-729-101-07	s	TRANSISTOR 2SB798
Q5008	8-729-230-49	s	TRANSISTOR 2SC2712-YG
Q5009	1-801-806-11	s	TRANSISTOR DTC144EKA
Q5010	1-801-806-11	s	TRANSISTOR DTC144EKA
Q5011	1-801-806-11	s	TRANSISTOR DTC144EKA
Q5012	1-801-806-11	s	TRANSISTOR DTC144EKA
Q5013	1-801-806-11	s	TRANSISTOR DTC144EKA
Q5014	1-801-806-11	s	TRANSISTOR DTC144EKA
Q5017	8-729-230-49	s	TRANSISTOR 2SC2712-YG
Q5300	8-729-112-65	s	TRANSISTOR 2SA1462
Q5301	8-729-112-65	s	TRANSISTOR 2SA1462
Q5302	8-729-013-28	s	TRANSISTOR HN1B01FU-TE85R
Q5303	8-729-013-28	s	TRANSISTOR HN1B01FU-TE85R
Q5304	8-729-112-65	s	TRANSISTOR 2SA1462
Q5305	8-729-112-65	s	TRANSISTOR 2SA1462
Q5306	8-729-013-28	s	TRANSISTOR HN1B01FU-TE85R
Q5307	8-729-013-28	s	TRANSISTOR HN1B01FU-TE85R
Q5308	8-729-013-28	s	TRANSISTOR HN1B01FU-TE85R
Q5309	8-729-013-28	s	TRANSISTOR HN1B01FU-TE85R
Q5701	8-729-230-49	s	TRANSISTOR 2SC2712-YG
Q5702	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
R5001	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5005	1-216-673-11	s	RESISTOR,CHIP 8.2K 1/10W(2012)
R5006	1-216-682-11	s	RESISTOR,CHIP 20K 1/10W (2012)
R5007	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5008	1-216-644-11	s	RESISTOR,CHIP 510 1/10W (2012)
R5009	1-216-829-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R5015	1-216-813-11	s	RESISTOR, CHIP 220 1/16W 1608
R5016	1-216-813-11	s	RESISTOR, CHIP 220 1/16W 1608
R5017	1-216-813-11	s	RESISTOR, CHIP 220 1/16W 1608
R5018	1-216-813-11	s	RESISTOR, CHIP 220 1/16W 1608
R5019	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R5020	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5021	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R5028	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5029	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5030	1-216-830-11	s	RESISTOR,CHIP 5.6K 1/16W 1608
R5031	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5033	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R5034	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R5035	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5036	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5040	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R5041	1-216-829-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R5042	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5043	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R5044	1-216-813-11	s	RESISTOR, CHIP 220 1/16W 1608
R5045	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5046	1-216-829-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R5047	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5048	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5049	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5050	1-216-848-11	s	RESISTOR,CHIP 180K 1/16 (1608)
R5051	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5052	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5053	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608

(C BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R5054	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R5055	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R5056	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5058	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R5059	1-216-829-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R5060	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5061	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R5063	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5066	1-216-829-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R5067	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5069	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5070	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5071	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5072	1-216-839-11	s	RESISTOR,CHIP 33K 1/16W 1608
R5073	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R5074	1-216-839-11	s	RESISTOR,CHIP 33K 1/16W 1608
R5075	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5076	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R5077	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R5078	1-216-797-11	s	RESISTOR,CHIP 10 1/16W 1608
R5079	1-216-634-11	s	RESISTOR,CHIP 200 1/10W(2012)
R5080	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5081	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5082	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5083	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5084	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5085	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5086	1-216-662-11	s	RESISTOR,CHIP 3K 1/10W (2012)
R5095	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5096	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R5097	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R5099	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R5100	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R5101	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5102	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5103	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5104	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5105	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5106	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5107	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5108	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5109	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5110	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5114	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5115	1-216-827-11	s	RESISTOR, CHIP 3.3K 1/16W 1608
R5116	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R5117	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5118	1-216-815-11	s	RESISTOR,CHIP 330 1/16W 1608
R5119	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R5120	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5121	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R5122	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5123	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5125	1-218-702-11	s	RESISTOR CHIP 2.7K 1/16W(1608)
R5127	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5128	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5129	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5130	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5131	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)

(C BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R5132	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5133	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5134	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5135	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5138	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5139	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5140	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5141	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R5142	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5143	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R5144	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5145	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5146	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5147	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R5148	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R5149	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5150	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5151	1-216-815-11	s	RESISTOR,CHIP 330 1/16W 1608
R5152	1-216-815-11	s	RESISTOR,CHIP 330 1/16W 1608
R5153	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R5154	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5155	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5156	1-216-831-11	s	RESISTOR,CHIP 6.8K 1/16W(1608)
R5160	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5161	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R5162	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5163	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5164	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5165	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5201	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5202	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5203	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5204	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5205	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5207	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5208	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5209	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5210	1-216-815-11	s	RESISTOR,CHIP 330 1/16W 1608
R5211	1-216-815-11	s	RESISTOR,CHIP 330 1/16W 1608
R5212	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5213	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5214	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R5215	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5216	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5217	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5218	1-216-839-11	s	RESISTOR,CHIP 33K 1/16W 1608
R5219	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5220	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5221	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5222	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5223	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5224	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5225	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5226	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5227	1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R5228	1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R5229	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5230	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5231	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608

(C BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R5232	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5233	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5234	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5235	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5236	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5237	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5238	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5239	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5240	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R5242	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5243	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5244	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5245	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5246	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5247	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5248	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R5249	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5250	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5251	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5252	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5253	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5254	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5255	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5256	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5258	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5260	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5261	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5262	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5263	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R5264	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R5265	1-216-807-11	s	RESISTOR, CHIP 68 1/16W 1608
R5266	1-216-807-11	s	RESISTOR, CHIP 68 1/16W 1608
R5267	1-216-807-11	s	RESISTOR, CHIP 68 1/16W 1608
R5268	1-216-807-11	s	RESISTOR, CHIP 68 1/16W 1608
R5269	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5270	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5271	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5272	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5273	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5274	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5276	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5277	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5278	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5279	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5280	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5281	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R5282	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5301	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5302	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5303	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5304	1-218-702-11	s	RESISTOR CHIP 2.7K 1/16W(1608)
R5305	1-218-702-11	s	RESISTOR CHIP 2.7K 1/16W(1608)
R5306	1-216-808-11	s	RESISTOR,CHIP 82 1/16W 1608
R5307	1-216-817-11	s	RESISTOR,CHIP 470 1/16W 1608
R5308	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5309	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5310	1-218-285-11	s	RESISTOR,CHIP 75 1/16W (1608)
R5311	1-216-817-11	s	RESISTOR,CHIP 470 1/16W 1608
R5312	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)

(C BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R5313	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5315	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R5316	1-218-702-11	s	RESISTOR CHIP 2.7K 1/16W(1608)
R5317	1-218-702-11	s	RESISTOR CHIP 2.7K 1/16W(1608)
R5318	1-216-808-11	s	RESISTOR,CHIP 82 1/16W 1608
R5320	1-216-817-11	s	RESISTOR,CHIP 470 1/16W 1608
R5321	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5323	1-216-789-11	s	RESISTOR,CHIP 2.2 1/16W(1608)
R5324	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5326	1-216-817-11	s	RESISTOR,CHIP 470 1/16W 1608
R5329	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R5330	1-216-789-11	s	RESISTOR,CHIP 2.2 1/16W(1608)
R5331	1-218-285-11	s	RESISTOR,CHIP 75 1/16W (1608)
R5334	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5335	1-218-702-11	s	RESISTOR CHIP 2.7K 1/16W(1608)
R5336	1-218-702-11	s	RESISTOR CHIP 2.7K 1/16W(1608)
R5337	1-216-808-11	s	RESISTOR,CHIP 82 1/16W 1608
R5338	1-216-817-11	s	RESISTOR,CHIP 470 1/16W 1608
R5339	1-216-817-11	s	RESISTOR,CHIP 470 1/16W 1608
R5341	1-218-285-11	s	RESISTOR,CHIP 75 1/16W (1608)
R5342	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5343	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5344	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R5348	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5349	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R5352	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5353	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5354	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5355	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5356	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5357	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5358	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5359	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5360	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5362	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5364	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5365	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5367	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5368	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R5369	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5370	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5371	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5373	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5374	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5375	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5376	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5377	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5383	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5384	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5385	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5388	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5389	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5391	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5392	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R5393	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R5394	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5395	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5396	1-216-789-11	s	RESISTOR,CHIP 2.2 1/16W(1608)
R5397	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)

(C BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R5398	1-216-789-11	s	RESISTOR,CHIP 2.2 1/16W(1608)
R5399	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5400	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R5401	1-216-789-11	s	RESISTOR,CHIP 2.2 1/16W(1608)
R5402	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R5403	1-216-789-11	s	RESISTOR,CHIP 2.2 1/16W(1608)
R5404	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5405	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5406	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5407	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5412	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5413	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5414	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5415	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5416	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5417	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5418	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5419	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5420	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5421	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5422	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5423	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5424	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5425	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5428	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5429	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5431	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5433	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5434	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5436	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5438	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R5439	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R5440	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5441	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5442	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5443	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5444	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5445	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5446	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5447	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5448	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5449	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5450	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5451	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5458	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5459	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5460	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5461	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5462	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5463	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5466	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5467	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5470	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5471	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5473	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5475	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5476	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R5481	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5482	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608

(C BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R5483	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5484	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5485	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5486	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5487	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5488	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5489	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5490	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5491	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R5492	1-216-824-11	s	RESISTOR, CHIP 1.8K 1/16W 1608
R5493	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5494	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5495	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5496	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5497	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5701	1-216-831-11	s	RESISTOR,CHIP 6.8K 1/16W(1608)
R5702	1-216-831-11	s	RESISTOR,CHIP 6.8K 1/16W(1608)
R5703	1-216-839-11	s	RESISTOR,CHIP 33K 1/16W 1608
R5704	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5705	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5706	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5707	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5708	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5709	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5710	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5711	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R5712	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R5713	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5714	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5715	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5716	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5717	1-216-817-11	s	RESISTOR,CHIP 470 1/16W 1608
R5718	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5719	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5720	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5721	1-216-811-11	s	RESISTOR, CHIP 150 1/16W(1608)
R5722	1-216-811-11	s	RESISTOR, CHIP 150 1/16W(1608)
R5723	1-216-811-11	s	RESISTOR, CHIP 150 1/16W(1608)
R5724	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5725	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5726	1-216-827-11	s	RESISTOR, CHIP 3.3K 1/16W 1608
R5727	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R5728	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R5730	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5732	1-216-817-11	s	RESISTOR,CHIP 470 1/16W 1608
R5733	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5734	1-216-814-11	s	RESISTOR,CHIP 270 1/16W 1608
R5735	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5736	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5737	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5738	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5739	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5740	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5741	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R5742	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
RB5701	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB5702	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB5703	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB5704	1-239-409-11	s	RESISTOR NETWORK 47 (1608)

(C BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
RB5705	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB5706	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB5707	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB5708	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB5709	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB5710	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB5712	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB5713	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB5714	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB5715	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB5716	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB5717	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB5718	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB5719	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
S5001	1-571-674-11	s	SWITCH,SLIDE (2-2-2)
S5701	1-571-674-11	s	SWITCH,SLIDE (2-2-2)
TH5000	1-808-656-11	s	THERMISTOR
TH5001	1-808-656-11	s	THERMISTOR
TP5000	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5001	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5002	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5003	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5004	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5005	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5006	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5007	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5008	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5009	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5010	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5011	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5012	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5013	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5014	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5300	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5301	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5302	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5303	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5304	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5305	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5306	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5307	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5308	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5309	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5310	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5311	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5312	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5313	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5314	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5315	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5316	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5317	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5318	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5319	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5701	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5702	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5703	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5704	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5705	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)

(C BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
TP5706	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5707	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5708	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5709	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5710	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5711	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5712	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP5713	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
X5000	1-781-659-11	s	VIBRATOR, CRYSTAL (12.288MHz)

N BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-1391-110-A	s	MOUNTED CIRCUIT BOARD, N
C2300	1-126-204-11	s	CAPACITOR, ELECT 47MF/16V(CHIP
CN2300	1-580-056-21	o	PIN,CONNECTOR 3P
IC2300	8-749-012-17	s	IC RS-140-T
R2300	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R2301	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)

BA BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-1136-156-A	s	MOUNTED CIRCUIT BOARD, BA
C4000	1-135-342-11	s	CAPACITOR,SOLID ELECT 56MF
C4001	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4002	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C4003	1-162-915-11	s	CAPACITOR,CERAMIC 10PF/50V CH
C4004	1-128-004-11	s	CAPACITOR ERECT 10MF/16V(CHIP)
C4005	1-107-682-11	s	CAPACITOR,CHIP 1MF/16V (3216)
C4006	1-107-682-11	s	CAPACITOR,CHIP 1MF/16V (3216)
C4007	1-107-682-11	s	CAPACITOR,CHIP 1MF/16V (3216)
C4008	1-135-346-11	s	CAP, SOLID ELECT 39MF 16V
C4009	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4010	1-126-204-11	s	CAPACITOR, ELECT 47MF/16V(CHIP
C4011	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C4012	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V
C4013	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C4014	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4015	1-104-607-11	s	CAPACITOR ERECT 47MF/16V(105C)
C4016	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C4017	1-127-820-11	s	CAPACITOR, SQUARE CHIP 4.7MF
C4018	1-107-682-11	s	CAPACITOR,CHIP 1MF/16V (3216)
C4019	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4020	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4021	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4022	1-126-601-11	s	CAPACITOR,ELECT 2.2MF/50V
C4023	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C4024	1-104-607-11	s	CAPACITOR ERECT 47MF/16V(105C)
C4026	1-127-820-11	s	CAPACITOR, SQUARE CHIP 4.7MF
C4027	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4028	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C4029	1-126-204-11	s	CAPACITOR, ELECT 47MF/16V(CHIP
C4030	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C4031	1-128-004-11	s	CAPACITOR ERECT 10MF/16V(CHIP)
C4032	1-125-898-11	s	CAPACITOR, CERAMIC 0.22MF 50V
C4033	1-135-342-11	s	CAPACITOR,SOLID ELECT 56MF
C4034	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C4035	1-135-342-11	s	CAPACITOR,SOLID ELECT 56MF
C4036	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C4037	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C4038	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C4039	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4040	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4041	1-128-004-11	s	CAPACITOR ERECT 10MF/16V(CHIP)
C4042	1-128-004-11	s	CAPACITOR ERECT 10MF/16V(CHIP)
C4043	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4044	1-135-342-11	s	CAPACITOR,SOLID ELECT 56MF
C4045	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4046	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4047	1-126-205-11	s	CAPACITOR,ELECT 47M/6.3
C4048	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C4049	1-126-204-11	s	CAPACITOR, ELECT 47MF/16V(CHIP
C4050	1-162-919-11	s	CAPACITOR,CERAMIC 22PF/50V CH
C4051	1-162-924-11	s	CAPACITOR,CERAMIC 56PF/50V CH
C4052	1-162-919-11	s	CAPACITOR,CERAMIC 22PF/50V CH
C4053	1-135-342-11	s	CAPACITOR,SOLID ELECT 56MF
C4054	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4055	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4056	1-162-920-11	s	CAPACITOR,CERAMIC 27PF/50V CH
C4057	1-162-924-11	s	CAPACITOR,CERAMIC 56PF/50V CH

(BA BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C4058	1-128-004-11	s	CAPACITOR ERECT 10MF/16V(CHIP)
C4060	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4061	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4062	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C4063	1-135-342-11	s	CAPACITOR,SOLID ELECT 56MF
C4064	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4065	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4066	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4067	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4068	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4069	1-162-920-11	s	CAPACITOR,CERAMIC 27PF/50V CH
C4070	1-162-924-11	s	CAPACITOR,CERAMIC 56PF/50V CH
C4071	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C4072	1-128-004-11	s	CAPACITOR ERECT 10MF/16V(CHIP)
C4073	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C4077	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4078	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4079	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C4080	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C4081	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4082	1-162-917-11	s	CAPACITOR,CERAMIC 15PF/50V CH
C4083	1-128-004-11	s	CAPACITOR ERECT 10MF/16V(CHIP)
C4084	1-128-013-11	s	CAPACITOR ERECT 1MF/50V
C4085	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4086	1-162-966-11	s	CAPACITOR,CERAMIC 2200PF/50V B
C4087	1-164-315-11	s	CAPACITOR,CERAMIC 470PF/50V CH
C4088	1-162-916-11	s	CAPACITOR,CERAMIC 12PF/50V CH
C4089	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C4090	1-162-916-11	s	CAPACITOR,CERAMIC 12PF/50V CH
C4091	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4092	1-162-916-11	s	CAPACITOR,CERAMIC 12PF/50V CH
C4093	1-162-916-11	s	CAPACITOR,CERAMIC 12PF/50V CH
C4094	1-128-004-11	s	CAPACITOR ERECT 10MF/16V(CHIP)
C4095	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4096	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4097	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4098	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4100	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4101	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C4103	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C4105	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4106	1-162-915-11	s	CAPACITOR,CERAMIC 10PF/50V CH
C4107	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4108	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4109	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4110	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C4111	1-162-966-11	s	CAPACITOR,CERAMIC 2200PF/50V B
C4112	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C4113	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4114	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4115	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4116	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C4117	1-164-392-11	s	CAPACITOR CERAMIC 390PF/50V CH
C4118	1-128-391-11	s	CAPACITOR,ELECT 330MF/6.3V
C4119	1-109-982-11	s	CAPACITOR,CHIP CERAMIC 1MF/10V
C4120	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4121	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4123	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4124	1-127-820-11	s	CAPACITOR, SQUARE CHIP 4.7MF

(BA BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C4125	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4140	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C4141	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C4150	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C4151	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4152	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
CN4000	1-815-353-21	o	CONNECTOR, BORD TO BOARD 50P
CN4001	1-793-798-21	o	CONNECTOR, BOARD TO BOARD
FB4000	1-543-775-11	s	BEAD, FERRITE
FB4001	1-543-775-11	s	BEAD, FERRITE
FB4002	1-543-775-11	s	BEAD, FERRITE
FB4004	1-414-234-11	s	INDUCTOR,FERRITE BEAD
FB4005	1-414-753-91	s	INDUCTOR 4.7UH
FB4006	1-414-234-11	s	INDUCTOR,FERRITE BEAD
FB4007	1-414-234-11	s	INDUCTOR,FERRITE BEAD
FB4008	1-414-234-11	s	INDUCTOR,FERRITE BEAD
FL4000	1-233-736-21	s	FILTER, EMI
FL4001	1-233-736-21	s	FILTER, EMI
FL4002	1-233-736-21	s	FILTER, EMI
FL4003	1-233-736-21	s	FILTER, EMI
FL4004	1-233-736-21	s	FILTER, EMI
FL4005	1-233-736-21	s	FILTER, EMI
FL4006	1-236-894-11	s	FILTER, LOW-PASS
FL4007	1-239-289-11	s	FILTER, LOW PASS
FL4008	1-239-289-11	s	FILTER, LOW PASS
IC4000	8-752-094-47	s	IC CXA2123AQ-T6
IC4001	8-759-524-85	s	IC TC7W240FU(TE12R)
IC4002	8-759-353-02	s	IC NJM2533M (TE2)
IC4003	8-759-353-02	s	IC NJM2533M (TE2)
IC4004	8-759-242-72	s	IC TC7W00F
IC4005	8-759-436-89	s	IC MC141627FT
IC4006	8-759-568-27	s	IC MSM514265C-60JSDR1
IC4007	8-759-594-44	s	IC UPD64082GF-3BA
IC4008	8-759-269-92	s	IC SN74HCU04ANS (E20)
IC4010	8-759-533-85	s	IC L88M05T-FA-TL
L4000	1-412-058-11	s	INDUCTOR,SMALL TYPE 10UH
L4001	1-412-058-11	s	INDUCTOR,SMALL TYPE 10UH
L4002	1-412-058-11	s	INDUCTOR,SMALL TYPE 10UH
L4003	1-410-389-31	s	INDUCTOR,CHIP 47UH (3225)
L4004	1-410-389-31	s	INDUCTOR,CHIP 47UH (3225)
L4005	1-410-383-31	s	INDUCTOR,CHIP 15UH (3225)
L4006	1-410-389-31	s	INDUCTOR,CHIP 47UH (3225)
L4007	1-410-383-31	s	INDUCTOR,CHIP 15UH (3225)
L4008	1-412-058-11	s	INDUCTOR,SMALL TYPE 10UH
L4009	1-412-058-11	s	INDUCTOR,SMALL TYPE 10UH
L4010	1-412-058-11	s	INDUCTOR,SMALL TYPE 10UH
L4011	1-412-058-11	s	INDUCTOR,SMALL TYPE 10UH
L4012	1-412-058-11	s	INDUCTOR,SMALL TYPE 10UH
L4013	1-410-200-31	s	CHIP INDUCTOR
L4014	1-412-058-11	s	INDUCTOR,SMALL TYPE 10UH
L4015	1-412-058-11	s	INDUCTOR,SMALL TYPE 10UH
L4016	1-414-753-91	s	INDUCTOR 4.7UH
L4017	1-414-753-91	s	INDUCTOR 4.7UH
Q4000	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4001	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4002	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4003	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6

(BA BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
Q4004	8-729-216-22	s	TRANSISTOR 2SA1162-G
Q4005	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q4006	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4007	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4008	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4009	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4010	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q4011	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q4012	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4013	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4014	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q4015	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q4016	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4017	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q4018	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4019	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q4020	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4021	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4022	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4023	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q4024	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q4025	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4026	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4027	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q4028	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q4029	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4030	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4031	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q4032	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q4033	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4034	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4035	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q4036	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q4037	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4038	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4039	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
R4000	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R4001	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R4002	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R4003	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R4004	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R4005	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R4006	1-218-726-11	s	RESISTOR CHIP 27K 1/16W (1608)
R4007	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R4008	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R4009	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R4010	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R4011	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R4012	1-216-855-11	s	RESISTOR, CHIP 680K 1/16W 1608
R4013	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R4014	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R4015	1-216-828-11	s	RESISTOR, CHIP 3.9K 1/16W 1608
R4016	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R4017	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R4018	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R4019	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R4020	1-216-855-11	s	RESISTOR, CHIP 680K 1/16W 1608
R4021	1-218-713-11	s	RESISTOR,METAL 7.5K 1/16W

(BA BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R4022	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R4023	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R4024	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R4025	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R4026	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R4027	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R4028	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R4029	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R4030	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R4031	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R4032	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R4033	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R4034	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R4035	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R4036	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R4038	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R4039	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R4040	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R4041	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R4042	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R4043	1-216-822-11	s	RESISTOR, CHIP 1.2K 1/16W 1608
R4044	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R4045	1-216-813-11	s	RESISTOR, CHIP 220 1/16W 1608
R4046	1-216-813-11	s	RESISTOR, CHIP 220 1/16W 1608
R4047	1-216-813-11	s	RESISTOR, CHIP 220 1/16W 1608
R4049	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R4050	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R4051	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R4052	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R4053	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R4054	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R4055	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R4056	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R4057	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R4058	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R4059	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R4060	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R4061	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R4062	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R4063	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R4067	1-216-827-11	s	RESISTOR, CHIP 3.3K 1/16W 1608
R4068	1-216-814-11	s	RESISTOR,CHIP 270 1/16W 1608
R4069	1-218-685-11	s	RESISTOR,CHIP 510 1/16W
R4070	1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R4071	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R4072	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R4073	1-218-723-11	s	RESISTOR,CHIP 20K 1/16W(1608)
R4074	1-216-820-11	s	RESISTOR, CHIP 820 1/16W 1608
R4075	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R4076	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R4077	1-216-827-11	s	RESISTOR, CHIP 3.3K 1/16W 1608
R4078	1-216-814-11	s	RESISTOR,CHIP 270 1/16W 1608
R4079	1-218-685-11	s	RESISTOR,CHIP 510 1/16W
R4080	1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R4081	1-216-817-11	s	RESISTOR,CHIP 470 1/16W 1608
R4082	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R4083	1-218-731-11	s	RESISTOR,METAL 43K 1/16
R4084	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R4085	1-218-723-11	s	RESISTOR,CHIP 20K 1/16W(1608)

(BA BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R4086	1-216-820-11	s	RESISTOR, CHIP 820 1/16W 1608
R4087	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R4088	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R4089	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R4090	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R4091	1-218-664-11	s	RESISTOR,CHIP 68 1/16W (1608)
R4092	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R4093	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R4094	1-216-832-11	s	RESISTOR,CHIP 8.2K 1/16W 1608
R4095	1-218-686-11	s	RESISTOR CHIP 560 1/16W (1608)
R4096	1-216-829-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R4097	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R4098	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R4099	1-218-688-11	s	RESISTOR,CHIP 680 1/16W(1608)
R4100	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R4101	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R4102	1-218-686-11	s	RESISTOR CHIP 560 1/16W (1608)
R4103	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R4104	1-216-813-11	s	RESISTOR, CHIP 220 1/16W 1608
R4105	1-216-817-11	s	RESISTOR,CHIP 470 1/16W 1608
R4106	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R4107	1-216-849-11	s	RESISTOR,CHIP 220K 1/16W 1608
R4108	1-218-710-11	s	RESISTOR,CHIP 5.6K 1/16W(1608)
R4110	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R4111	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R4112	1-218-707-11	s	RESISTOR,CHIP 4.3K 1/16W(1608)
R4113	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R4114	1-216-829-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R4115	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R4116	1-218-707-11	s	RESISTOR,CHIP 4.3K 1/16W(1608)
R4117	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R4118	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R4120	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R4121	1-216-824-11	s	RESISTOR, CHIP 1.8K 1/16W 1608
R4122	1-216-824-11	s	RESISTOR, CHIP 1.8K 1/16W 1608
R4123	1-216-824-11	s	RESISTOR, CHIP 1.8K 1/16W 1608
R4124	1-216-824-11	s	RESISTOR, CHIP 1.8K 1/16W 1608
R4125	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R4126	1-218-700-11	s	RESISTOR,CHIP 2.2K 1/16W(1608)
R4127	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R4128	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R4129	1-216-822-11	s	RESISTOR, CHIP 1.2K 1/16W 1608
R4130	1-216-826-11	s	RESISTOR,CHIP 2.7K 1/16W(1608)
R4131	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R4132	1-216-823-11	s	RESISTOR, CHIP 1.5K 1/16W
R4133	1-216-817-11	s	RESISTOR,CHIP 470 1/16W 1608
R4134	1-216-829-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R4135	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R4136	1-216-829-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R4137	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R4138	1-216-824-11	s	RESISTOR, CHIP 1.8K 1/16W 1608
R4139	1-216-824-11	s	RESISTOR, CHIP 1.8K 1/16W 1608
R4140	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R4141	1-216-829-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R4142	1-218-712-11	s	RESISTOR,METAL 6.8K 1/16W
R4144	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R4146	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R4147	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R4151	1-216-857-11	s	RESISTOR,CHIP 1M 1/16W(1608)

(BA BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R4152	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R4153	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R4154	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R4155	1-216-822-11	s	RESISTOR, CHIP 1.2K 1/16W 1608
R4156	1-216-826-11	s	RESISTOR,CHIP 2.7K 1/16W(1608)
R4162	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R4163	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R4165	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R4171	1-218-720-11	s	RESISTOR,CHIP 15K 1/16W(1608)
R4172	1-218-719-11	s	RESISTOR,METAL 13K 1/16
R4173	1-216-835-11	s	RESISTOR,CHIP 15K 1/16W
R4174	1-216-803-11	s	RESISTOR,CHIP 33 1/16W (1608)
R4175	1-216-803-11	s	RESISTOR,CHIP 33 1/16W (1608)
R4176	1-216-803-11	s	RESISTOR,CHIP 33 1/16W (1608)
X4000	1-781-914-21	s	VIBRATOR, CRYSTAL (16.2MHz)
X4001	1-760-273-11	s	VIBRATOR, CRYSTAL (20.0MHz)

BB BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-1136-157-A	s	MOUNTED CIRCUIT BOARD, BB
C3000	1-115-156-11	s	CAPACITOR,CERAMIC 1MF/10V(1608
C3001	1-125-817-11	s	CAPACITOR, CERAMIC 10MF/6.3V
C3002	1-110-666-11	s	CAPACITOR,ELECT 22MF/6.3V(BP)
C3003	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3004	1-125-817-11	s	CAPACITOR, CERAMIC 10MF/6.3V
C3005	1-125-817-11	s	CAPACITOR, CERAMIC 10MF/6.3V
C3006	1-110-666-11	s	CAPACITOR,ELECT 22MF/6.3V(BP)
C3007	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3008	1-125-817-11	s	CAPACITOR, CERAMIC 10MF/6.3V
C3009	1-115-156-11	s	CAPACITOR,CERAMIC 1MF/10V(1608
C3010	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C3011	1-125-817-11	s	CAPACITOR, CERAMIC 10MF/6.3V
C3012	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C3013	1-110-666-11	s	CAPACITOR,ELECT 22MF/6.3V(BP)
C3014	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3015	1-125-817-11	s	CAPACITOR, CERAMIC 10MF/6.3V
C3016	1-115-156-11	s	CAPACITOR,CERAMIC 1MF/10V(1608
C3017	1-115-566-11	s	CAPACITOR,CERAMIC 4.7MF B/6.3V
C3018	1-126-205-11	s	CAPACITOR,ELECT 47M/6.3
C3019	1-127-573-11	s	CAPACITOR,.CERAMIC 1MFB(2012)
C3020	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3021	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3022	1-164-230-11	s	CAPACITOR,CERAMIC 220PF/50V
C3023	1-126-204-11	s	CAPACITOR, ELECT 47MF/16V(CHIP
C3024	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C3025	1-125-817-11	s	CAPACITOR, CERAMIC 10MF/6.3V
C3026	1-110-563-11	s	CAPACITOR CERAMIC 0.068MF/16V
C3027	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3028	1-128-004-11	s	CAPACITOR ERECT 10MF/16V(CHIP)
C3029	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C3030	1-126-204-11	s	CAPACITOR, ELECT 47MF/16V(CHIP
C3031	1-125-817-11	s	CAPACITOR, CERAMIC 10MF/6.3V
C3032	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3033	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3034	1-126-204-11	s	CAPACITOR, ELECT 47MF/16V(CHIP
C3035	1-128-004-11	s	CAPACITOR ERECT 10MF/16V(CHIP)
C3036	1-128-453-21	s	CAPACITOR,ELECT 47MF
C3037	1-128-399-11	s	CAPACITOR ELECT 330MF/16V(CHIP
C3038	1-115-156-11	s	CAPACITOR,CERAMIC 1MF/10V(1608
C3039	1-115-156-11	s	CAPACITOR,CERAMIC 1MF/10V(1608
C3040	1-162-905-11	s	CAPACITOR,CERAMIC 1PF/50V (CK)
C3041	1-128-453-21	s	CAPACITOR,ELECT 47MF
C3042	1-128-399-11	s	CAPACITOR ELECT 330MF/16V(CHIP
C3043	1-115-156-11	s	CAPACITOR,CERAMIC 1MF/10V(1608
C3044	1-115-156-11	s	CAPACITOR,CERAMIC 1MF/10V(1608
C3045	1-162-905-11	s	CAPACITOR,CERAMIC 1PF/50V (CK)
C3046	1-128-453-21	s	CAPACITOR,ELECT 47MF
C3047	1-128-399-11	s	CAPACITOR ELECT 330MF/16V(CHIP
C3048	1-115-156-11	s	CAPACITOR,CERAMIC 1MF/10V(1608
C3049	1-115-156-11	s	CAPACITOR,CERAMIC 1MF/10V(1608
C3050	1-162-905-11	s	CAPACITOR,CERAMIC 1PF/50V (CK)
C3051	1-128-004-11	s	CAPACITOR ERECT 10MF/16V(CHIP)
C3052	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C3053	1-128-004-11	s	CAPACITOR ERECT 10MF/16V(CHIP)
C3054	1-128-004-11	s	CAPACITOR ERECT 10MF/16V(CHIP)
C3055	1-113-701-21	s	CAPACITOR,ELECT 22MF/16V (NP)
C3056	1-115-156-11	s	CAPACITOR,CERAMIC 1MF/10V(1608

(BB BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C3057	1-128-013-11	s	CAPACITOR ERECT 1MF/50V
C3058	1-128-004-11	s	CAPACITOR ERECT 10MF/16V(CHIP)
C3059	1-113-701-21	s	CAPACITOR,ELECT 22MF/16V (NP)
C3060	1-128-004-11	s	CAPACITOR ERECT 10MF/16V(CHIP)
C3061	1-126-204-11	s	CAPACITOR, ELECT 47MF/16V(CHIP
C3062	1-115-156-11	s	CAPACITOR,CERAMIC 1MF/10V(1608
C3063	1-164-506-11	s	CAPACITOR,CERAMIC 4.7MF/16V
C3064	1-126-395-11	s	CAPACITOR,ELECT 22MF/16V(CHIP)
C3065	1-128-004-11	s	CAPACITOR ERECT 10MF/16V(CHIP)
C3066	1-164-506-11	s	CAPACITOR,CERAMIC 4.7MF/16V
C3067	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3068	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3069	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C3070	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C3071	1-126-395-11	s	CAPACITOR,ELECT 22MF/16V(CHIP)
C3072	1-128-013-11	s	CAPACITOR ERECT 1MF/50V
C3073	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3074	1-126-395-11	s	CAPACITOR,ELECT 22MF/16V(CHIP)
C3075	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3076	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3077	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3078	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3079	1-162-924-11	s	CAPACITOR,CERAMIC 56PF/50V CH
C3080	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3081	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3082	1-126-204-11	s	CAPACITOR, ELECT 47MF/16V(CHIP
C3083	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C3084	1-128-004-11	s	CAPACITOR ERECT 10MF/16V(CHIP)
C3085	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C3086	1-126-204-11	s	CAPACITOR, ELECT 47MF/16V(CHIP
C3087	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3088	1-125-891-11	s	CAPACITOR CERAMIC 0.47MF/10V
C3089	1-125-891-11	s	CAPACITOR CERAMIC 0.47MF/10V
C3090	1-125-891-11	s	CAPACITOR CERAMIC 0.47MF/10V
C3091	1-125-891-11	s	CAPACITOR CERAMIC 0.47MF/10V
C3092	1-125-891-11	s	CAPACITOR CERAMIC 0.47MF/10V
C3093	1-125-891-11	s	CAPACITOR CERAMIC 0.47MF/10V
C3094	1-125-891-11	s	CAPACITOR CERAMIC 0.47MF/10V
C3095	1-125-891-11	s	CAPACITOR CERAMIC 0.47MF/10V
C3096	1-125-891-11	s	CAPACITOR CERAMIC 0.47MF/10V
C3097	1-125-891-11	s	CAPACITOR CERAMIC 0.47MF/10V
C3098	1-125-891-11	s	CAPACITOR CERAMIC 0.47MF/10V
C3099	1-128-004-11	s	CAPACITOR ERECT 10MF/16V(CHIP)
C3100	1-128-004-11	s	CAPACITOR ERECT 10MF/16V(CHIP)
C3101	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C3102	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3103	1-128-065-11	s	CAPACITOR ELECT 68MF/10V(CHIP)
C3104	1-162-966-11	s	CAPACITOR,CERAMIC 2200PF/50V B
C3105	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3106	1-125-891-11	s	CAPACITOR CERAMIC 0.47MF/10V
C3107	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C3108	1-125-891-11	s	CAPACITOR CERAMIC 0.47MF/10V
C3109	1-125-891-11	s	CAPACITOR CERAMIC 0.47MF/10V
C3110	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C3111	1-125-891-11	s	CAPACITOR CERAMIC 0.47MF/10V
C3112	1-128-004-11	s	CAPACITOR ERECT 10MF/16V(CHIP)
C3113	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C3114	1-127-573-11	s	CAPACITOR,.CERAMIC 1MFB(2012)
C3115	1-125-891-11	s	CAPACITOR CERAMIC 0.47MF/10V

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Ref. No. or Q'ty	Part No.	SP	Description
C3116	1-125-891-11	s	CAPACITOR CERAMIC 0.47MF/10V
C3117	1-126-204-11	s	CAPACITOR, ELECT 47MF/16V(CHIP
C3118	1-115-156-11	s	CAPACITOR,CERAMIC 1MF/10V(1608
C3119	1-126-205-11	s	CAPACITOR,ELECT 47M/6.3
C3120	1-126-205-11	s	CAPACITOR,ELECT 47M/6.3
C3121	1-126-205-11	s	CAPACITOR,ELECT 47M/6.3
C3122	1-126-204-11	s	CAPACITOR, ELECT 47MF/16V(CHIP
C3123	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C3124	1-125-891-11	s	CAPACITOR CERAMIC 0.47MF/10V
C3125	1-125-891-11	s	CAPACITOR CERAMIC 0.47MF/10V
C3126	1-125-891-11	s	CAPACITOR CERAMIC 0.47MF/10V
C3127	1-125-891-11	s	CAPACITOR CERAMIC 0.47MF/10V
C3128	1-125-891-11	s	CAPACITOR CERAMIC 0.47MF/10V
C3129	1-125-891-11	s	CAPACITOR CERAMIC 0.47MF/10V
C3130	1-125-891-11	s	CAPACITOR CERAMIC 0.47MF/10V
C3131	1-125-891-11	s	CAPACITOR CERAMIC 0.47MF/10V
C3132	1-125-891-11	s	CAPACITOR CERAMIC 0.47MF/10V
C3133	1-128-010-11	s	CAPACITOR,ERECT 0.22MF/50V
C3134	1-125-891-11	s	CAPACITOR CERAMIC 0.47MF/10V
C3135	1-125-891-11	s	CAPACITOR CERAMIC 0.47MF/10V
C3136	1-125-891-11	s	CAPACITOR CERAMIC 0.47MF/10V
C3137	1-125-891-11	s	CAPACITOR CERAMIC 0.47MF/10V
C3138	1-126-204-11	s	CAPACITOR, ELECT 47MF/16V(CHIP
C3139	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C3140	1-125-891-11	s	CAPACITOR CERAMIC 0.47MF/10V
C3141	1-125-891-11	s	CAPACITOR CERAMIC 0.47MF/10V
C3142	1-125-891-11	s	CAPACITOR CERAMIC 0.47MF/10V
C3143	1-125-891-11	s	CAPACITOR CERAMIC 0.47MF/10V
C3144	1-125-891-11	s	CAPACITOR CERAMIC 0.47MF/10V
C3145	1-125-891-11	s	CAPACITOR CERAMIC 0.47MF/10V
C3146	1-128-013-11	s	CAPACITOR ERECT 1MF/50V
C3147	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3148	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V
C3149	1-126-204-11	s	CAPACITOR, ELECT 47MF/16V(CHIP
C3150	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3151	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3152	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3153	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3155	1-164-392-11	s	CAPACITOR CERAMIC 390PF/50V CH
C3156	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3157	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3159	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3160	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3161	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C3162	1-115-416-11	s	CAPACITOR,CERAMIC 1000PF/25V
C3163	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3164	1-124-778-00	s	CAPACITOR,ELECT 22MF/6.3V
C3165	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3166	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3167	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3168	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C3169	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3170	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3171	1-164-505-11	s	CAPACITOR,CHIP CERAMIC 2.2MF
C3172	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3173	1-165-176-11	s	CAPACITOR,CERAMIC 47000PF/16V
C3174	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C3175	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C3176	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF

(BB BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C3177	1-165-176-11	s	CAPACITOR,CERAMIC 47000PF/16V
C3178	1-165-176-11	s	CAPACITOR,CERAMIC 47000PF/16V
C3179	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C3180	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3181	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3182	1-165-176-11	s	CAPACITOR,CERAMIC 47000PF/16V
C3183	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C3184	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3185	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C3186	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3187	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C3188	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3189	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C3190	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C3191	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3192	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C3193	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3194	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3195	1-164-505-11	s	CAPACITOR,CHIP CERAMIC 2.2MF
C3196	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C3197	1-119-667-11	s	CAPACITOR CERAMIC 22MF/10V(F)
C3198	1-125-837-11	s	CAPACITOR,CHIP CERAMIC1MF/6.3V
C3199	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3200	1-125-837-11	s	CAPACITOR,CHIP CERAMIC1MF/6.3V
C3201	1-125-817-11	s	CAPACITOR, CERAMIC 10MF/6.3V
C3202	1-119-667-11	s	CAPACITOR CERAMIC 22MF/10V(F)
C3203	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3204	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3205	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3206	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3207	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3208	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3209	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3210	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3211	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3212	1-119-667-11	s	CAPACITOR CERAMIC 22MF/10V(F)
C3213	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3214	1-125-837-11	s	CAPACITOR,CHIP CERAMIC1MF/6.3V
C3215	1-162-917-11	s	CAPACITOR,CERAMIC 15PF/50V CH
C3216	1-162-917-11	s	CAPACITOR,CERAMIC 15PF/50V CH
C3217	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3218	1-125-817-11	s	CAPACITOR, CERAMIC 10MF/6.3V
C3219	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3220	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3221	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3224	1-125-837-11	s	CAPACITOR,CHIP CERAMIC1MF/6.3V
C3225	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3226	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3227	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3228	1-128-394-11	s	CAPACITOR,ELECT 220MF/10V
C3229	1-128-399-11	s	CAPACITOR ELECT 330MF/16V(CHIP
C3230	1-128-399-11	s	CAPACITOR ELECT 330MF/16V(CHIP
C3231	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3232	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3233	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3234	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3235	1-128-394-11	s	CAPACITOR,ELECT 220MF/10V
C3236	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3237	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF

(BB BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C3238	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C3239	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3240	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3241	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3242	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3243	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3244	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3245	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3246	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3247	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3248	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3249	1-164-677-11	s	CAPACITOR,CERAMIC 0.033MF/16V
C3250	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3251	1-162-920-11	s	CAPACITOR,CERAMIC 27PF/50V CH
C3252	1-162-920-11	s	CAPACITOR,CERAMIC 27PF/50V CH
C3253	1-115-156-11	s	CAPACITOR,CERAMIC 1MF/10V(1608
C3254	1-164-505-11	s	CAPACITOR,CHIP CERAMIC 2.2MF
C3255	1-164-505-11	s	CAPACITOR,CHIP CERAMIC 2.2MF
C3256	1-126-206-11	s	CAPACITOR, ELECT 100MF/6.3V
C3257	1-128-394-11	s	CAPACITOR,ELECT 220MF/10V
C3258	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3259	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3260	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3261	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3262	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3263	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3264	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3265	1-128-394-11	s	CAPACITOR,ELECT 220MF/10V
C3266	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3267	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3268	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3269	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3270	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3271	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3272	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3273	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3274	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3275	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3276	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3277	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3278	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3279	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3280	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3281	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3282	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3283	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3284	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3285	1-128-394-11	s	CAPACITOR,ELECT 220MF/10V
C3286	1-128-394-11	s	CAPACITOR,ELECT 220MF/10V
C3287	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3288	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3289	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3290	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3291	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3292	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3293	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3294	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3295	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3296	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF

(BB BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C3297	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3298	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3299	1-115-156-11	s	CAPACITOR,CERAMIC 1MF/10V(1608
C3300	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3302	1-126-204-11	s	CAPACITOR, ELECT 47MF/16V(CHIP
C3303	1-165-112-11	s	CAPACITOR,CERAMIC 0.33MF/16V F
C3304	1-126-204-11	s	CAPACITOR, ELECT 47MF/16V(CHIP
C3305	1-165-112-11	s	CAPACITOR,CERAMIC 0.33MF/16V F
C3306	1-128-065-11	s	CAPACITOR ELECT 68MF/10V(CHIP)
C3307	1-165-112-11	s	CAPACITOR,CERAMIC 0.33MF/16V F
C3308	1-128-065-11	s	CAPACITOR ELECT 68MF/10V(CHIP)
C3309	1-165-112-11	s	CAPACITOR,CERAMIC 0.33MF/16V F
C3310	1-128-065-11	s	CAPACITOR ELECT 68MF/10V(CHIP)
C3311	1-165-112-11	s	CAPACITOR,CERAMIC 0.33MF/16V F
C3312	1-128-065-11	s	CAPACITOR ELECT 68MF/10V(CHIP)
C3313	1-165-112-11	s	CAPACITOR,CERAMIC 0.33MF/16V F
C3314	1-128-065-11	s	CAPACITOR ELECT 68MF/10V(CHIP)
C3315	1-165-112-11	s	CAPACITOR,CERAMIC 0.33MF/16V F
C3316	1-126-205-11	s	CAPACITOR,ELECT 47M/6.3
C3317	1-165-112-11	s	CAPACITOR,CERAMIC 0.33MF/16V F
C3318	1-128-065-11	s	CAPACITOR ELECT 68MF/10V(CHIP)
C3319	1-165-112-11	s	CAPACITOR,CERAMIC 0.33MF/16V F
C3320	1-128-065-11	s	CAPACITOR ELECT 68MF/10V(CHIP)
C3321	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C3322	1-115-416-11	s	CAPACITOR,CERAMIC 1000PF/25V
C3323	1-125-891-11	s	CAPACITOR CERAMIC 0.47MF/10V
C3324	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3325	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3326	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3327	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3328	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3329	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3330	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3331	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3332	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3333	1-119-667-11	s	CAPACITOR CERAMIC 22MF/10V(F)
C3334	1-119-667-11	s	CAPACITOR CERAMIC 22MF/10V(F)
C3335	1-119-667-11	s	CAPACITOR CERAMIC 22MF/10V(F)
C3336	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C3337	1-165-112-11	s	CAPACITOR,CERAMIC 0.33MF/16V F
C3338	1-128-065-11	s	CAPACITOR ELECT 68MF/10V(CHIP)
CN3000	1-815-570-11	o	CONNECTOR, BOARD TO BOARD
CN3002	1-793-798-21	o	CONNECTOR, BOARD TO BOARD
CN3003	1-785-306-21	o	CONNECTOR, BOARD TO BOARD
CN3004	1-774-932-21	s	CONNECTOR, FFC/FPC
CN3005	1-691-591-11	o	PIN,CONNECTOR (8P)(SMD)(1.5MM)
CN3006	1-785-306-21	o	CONNECTOR, BOARD TO BOARD
CN3007	1-764-177-11	o	PIN,CONNECTOR (7P)(SMD)(1.5MM)
CN3008	1-764-177-11	o	PIN,CONNECTOR (7P)(SMD)(1.5MM)
CN3009	1-785-305-21	o	CONNECTOR, BOARD TO BOARD
CN3010	1-785-305-21	o	CONNECTOR, BOARD TO BOARD
CN3011	1-766-376-11	o	PIN, CONNECTOR (1.5MM)(SMD) 9P
CN3012	1-793-798-21	o	CONNECTOR, BOARD TO BOARD
CN3014	1-815-353-21	o	CONNECTOR, BORD TO BOARD 50P
D3000	8-719-800-76	s	DIODE 1SS226
D3001	8-719-800-76	s	DIODE 1SS226
D3002	8-719-800-76	s	DIODE 1SS226
D3003	8-719-800-76	s	DIODE 1SS226

(BB BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
D3004	8-719-800-76	s	DIODE 1SS226
D3005	8-719-800-76	s	DIODE 1SS226
D3006	8-719-800-76	s	DIODE 1SS226
D3007	8-719-800-76	s	DIODE 1SS226
D3008	8-719-158-37	s	DIODE RD9.1SB2
D3009	8-719-914-43	s	DIODE DAN202K
D3010	8-719-158-37	s	DIODE RD9.1SB2
D3011	8-719-800-76	s	DIODE 1SS226
D3012	8-719-800-76	s	DIODE 1SS226
D3013	8-719-914-43	s	DIODE DAN202K
D3014	8-719-988-61	s	DIODE 1SS355TE-17
D3015	8-719-988-61	s	DIODE 1SS355TE-17
D3016	8-719-988-61	s	DIODE 1SS355TE-17
D3017	8-719-988-61	s	DIODE 1SS355TE-17
D3018	8-719-914-43	s	DIODE DAN202K
D3019	8-719-988-61	s	DIODE 1SS355TE-17
D3020	8-719-988-61	s	DIODE 1SS355TE-17
D3021	8-719-988-61	s	DIODE 1SS355TE-17
D3022	8-719-988-61	s	DIODE 1SS355TE-17
D3023	8-719-988-61	s	DIODE 1SS355TE-17
D3024	8-719-988-61	s	DIODE 1SS355TE-17
D3025	8-719-988-61	s	DIODE 1SS355TE-17
D3026	8-719-988-61	s	DIODE 1SS355TE-17
D3027	8-719-988-61	s	DIODE 1SS355TE-17
D3029	8-719-988-61	s	DIODE 1SS355TE-17
D3030	8-719-988-61	s	DIODE 1SS355TE-17
D3031	8-719-914-43	s	DIODE DAN202K
D3033	8-719-914-43	s	DIODE DAN202K
FB3000	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB3001	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB3003	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB3004	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB3005	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB3006	1-414-234-11	s	INDUCTOR,FERRITE BEAD
FB3007	1-414-234-11	s	INDUCTOR,FERRITE BEAD
FB3008	1-414-234-11	s	INDUCTOR,FERRITE BEAD
FB3009	1-414-234-11	s	INDUCTOR,FERRITE BEAD
FB3010	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB3011	1-414-234-11	s	INDUCTOR,FERRITE BEAD
FB3012	1-414-234-11	s	INDUCTOR,FERRITE BEAD
FB3013	1-414-234-11	s	INDUCTOR,FERRITE BEAD
FB3014	1-414-234-11	s	INDUCTOR,FERRITE BEAD
FB3015	1-414-234-11	s	INDUCTOR,FERRITE BEAD
FB3016	1-414-234-11	s	INDUCTOR,FERRITE BEAD
FB3018	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB3019	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB3020	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB3021	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB3022	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB3023	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB3024	1-414-234-11	s	INDUCTOR,FERRITE BEAD
FB3025	1-414-234-11	s	INDUCTOR,FERRITE BEAD
FB3026	1-414-234-11	s	INDUCTOR,FERRITE BEAD
FB3027	1-414-234-11	s	INDUCTOR,FERRITE BEAD
FB3028	1-414-234-11	s	INDUCTOR,FERRITE BEAD
FB3029	1-414-234-11	s	INDUCTOR,FERRITE BEAD
FB3030	1-414-234-11	s	INDUCTOR,FERRITE BEAD
FB3031	1-414-234-11	s	INDUCTOR,FERRITE BEAD

(BB BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
FB3032	1-414-234-11	s	INDUCTOR,FERRITE BEAD
IC3000	8-752-072-81	s	IC CXA1875AM
IC3001	8-759-422-82	s	IC HA4314BCB-E2
IC3002	8-759-422-82	s	IC HA4314BCB-E2
IC3003	8-759-472-35	s	IC 74VHC221AMTCX
IC3004	8-759-422-82	s	IC HA4314BCB-E2
IC3005	8-759-472-37	s	IC 74VHC240MTCX
IC3006	8-759-646-02	s	IC M52347FP-TE
IC3007	8-759-439-67	s	IC TC7W126FU(TE12R)
IC3008	8-759-542-11	s	IC MAX4223ESA-TG06
IC3009	8-759-542-11	s	IC MAX4223ESA-TG06
IC3010	8-759-542-11	s	IC MAX4223ESA-TG06
IC3011	8-759-700-78	s	IC NJM082M
IC3012	8-759-833-99	s	IC MC74HC4052ADTR2
IC3013	8-759-090-19	s	IC SN75453BPS
IC3014	8-759-092-80	s	IC SN75157PS
IC3015	8-759-564-49	s	IC TC7W53FU-TE12R
IC3016	8-759-457-53	s	IC GS1881-CTA
IC3017	8-752-072-81	s	IC CXA1875AM
IC3018	8-752-086-33	s	IC CXA2101AQ-TL
IC3019	8-759-242-64	s	IC TC4W53F
IC3020	8-759-494-88	s	IC TC75S56F(TE85R)
IC3021	8-759-084-79	s	IC TC7S14F
IC3022	8-759-344-12	s	IC GS4981CTA
IC3023	8-759-242-64	s	IC TC4W53F
IC3024	8-759-038-15	s	IC MC74HC4538AF
IC3025	8-759-031-84	s	IC SC7S04F
IC3026	8-759-433-92	s	IC TC7W14F-TE12L
IC3027	6-700-047-01	s	IC FMS9884AKAC175
IC3028	8-759-598-12	s	IC LP2985IM5X-3.5
IC3029	8-759-439-67	s	IC TC7W126FU(TE12R)
IC3030	6-700-141-11	s	IC DS90CF386MTDX
IC3031	8-759-456-26	s	IC 74LCX541MTCX
IC3032	8-759-456-26	s	IC 74LCX541MTCX
IC3033	8-759-456-26	s	IC 74LCX541MTCX
IC3034	8-759-456-26	s	IC 74LCX541MTCX
IC3035	8-759-456-26	s	IC 74LCX541MTCX
IC3036	8-759-837-38	s	IC RCV5-A1T-OTP
IC3037	8-759-456-26	s	IC 74LCX541MTCX
IC3038	8-759-456-26	s	IC 74LCX541MTCX
IC3039	8-759-544-01	s	IC S-80828ANNP-EDR-T2
IC3040	8-759-837-36	s	IC CXD9606Q
IC3041	8-759-663-74	s	IC HY57V161610DTC-7TR
IC3042	8-759-647-53	s	IC IMISM530AYB-D REV.T
IC3043	6-700-048-01		IC PW164-20PK
IC3044	8-759-653-69	s	IC ISPLSI2032VE-110LT44
IC3045	8-759-471-89	s	IC 74VHC02MTCX
IC3046	8-759-655-74	o	IC MBM29LV400TC-90PFTN-SX1696
IC3047	8-759-471-85	s	IC 74VHC00MTCX
IC3048	8-759-472-14	s	IC 74VHC125MTCX
IC3049	8-759-645-48	s	IC IDT71V016S15PH-TL
IC3050	8-759-472-14	s	IC 74VHC125MTCX
IC3051	8-759-439-67	s	IC TC7W126FU(TE12R)
IC3052	8-759-082-57	s	IC TC7W04FU
IC3053	8-759-544-01	s	IC S-80828ANNP-EDR-T2
IC3054	8-759-460-81	s	IC BA12FP-E2
IC3055	8-759-460-79	s	IC BA09FP-E2
IC3056	8-759-533-85	s	IC L88M05T-FA-TL

(BB BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
IC3057	8-759-460-72	s	IC BA033FP
IC3058	8-759-539-89	s	IC LM2990SX-5.0
IC3059	8-759-533-85	s	IC L88M05T-FA-TL
IC3060	8-759-460-72	s	IC BA033FP
IC3061	8-759-582-37	s	IC PQ2TZ15U
IC3062	8-759-460-72	s	IC BA033FP
IC3063	8-759-533-85	s	IC L88M05T-FA-TL
IC3064	8-759-472-14	s	IC 74VHC125MTCX
IC3065	8-759-439-67	s	IC TC7W126FU(TE12R)
IC3066	8-759-456-26	s	IC 74LCX541MTCX
IC3067	8-759-456-26	s	IC 74LCX541MTCX
IC3068	8-759-456-26	s	IC 74LCX541MTCX
IC3069	8-759-557-87	s	IC NC7SZ126P5X
IC3070	8-759-564-49	s	IC TC7W53FU-TE12R
IC3071	8-759-460-72	s	IC BA033FP
L3000	1-412-058-11	s	INDUCTOR,SMALL TYPE 10UH
L3001	1-412-058-11	s	INDUCTOR,SMALL TYPE 10UH
L3002	1-412-058-11	s	INDUCTOR,SMALL TYPE 10UH
L3003	1-412-058-11	s	INDUCTOR,SMALL TYPE 10UH
L3004	1-412-058-11	s	INDUCTOR,SMALL TYPE 10UH
L3005	1-412-058-11	s	INDUCTOR,SMALL TYPE 10UH
L3006	1-412-058-11	s	INDUCTOR,SMALL TYPE 10UH
L3007	1-412-363-11	s	FERRITE, EMI (SMD)
L3008	1-412-058-11	s	INDUCTOR,SMALL TYPE 10UH
L3009	1-412-363-11	s	FERRITE, EMI (SMD)
L3010	1-412-363-11	s	FERRITE, EMI (SMD)
L3011	1-412-058-11	s	INDUCTOR,SMALL TYPE 10UH
L3012	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L3013	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L3014	1-412-058-11	s	INDUCTOR,SMALL TYPE 10UH
L3015	1-412-058-11	s	INDUCTOR,SMALL TYPE 10UH
L3016	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L3017	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L3018	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L3019	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L3020	1-409-529-41	s	COIL, CHOKE 10UH
L3021	1-409-529-41	s	COIL, CHOKE 10UH
L3022	1-409-529-41	s	COIL, CHOKE 10UH
L3023	1-409-529-41	s	COIL, CHOKE 10UH
L3024	1-409-529-41	s	COIL, CHOKE 10UH
L3025	1-409-529-41	s	COIL, CHOKE 10UH
L3026	1-409-529-41	s	COIL, CHOKE 10UH
L3027	1-409-529-41	s	COIL, CHOKE 10UH
L3028	1-410-992-11	s	CHIP INDUCTOR 0.82UH (2012)
Q3000	8-729-112-65	s	TRANSISTOR 2SA1462
Q3001	8-729-107-31	s	TRANSISTOR 2SC3545
Q3002	8-729-107-31	s	TRANSISTOR 2SC3545
Q3003	8-729-107-31	s	TRANSISTOR 2SC3545
Q3004	8-729-230-49	s	TRANSISTOR 2SC2712-YG
Q3005	8-729-230-49	s	TRANSISTOR 2SC2712-YG
Q3006	8-729-216-22	s	TRANSISTOR 2SA1162-G
Q3007	8-729-230-49	s	TRANSISTOR 2SC2712-YG
Q3008	8-729-230-49	s	TRANSISTOR 2SC2712-YG
Q3009	8-729-216-22	s	TRANSISTOR 2SA1162-G
Q3010	8-729-216-22	s	TRANSISTOR 2SA1162-G
Q3011	8-729-902-96	s	TRANSISTOR FMS1
Q3012	8-729-902-96	s	TRANSISTOR FMS1
Q3013	8-729-902-96	s	TRANSISTOR FMS1
Q3014	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6

(BB BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
Q3015	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q3016	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q3017	1-801-806-11	s	TRANSISTOR DTC144EKA
Q3018	8-729-216-22	s	TRANSISTOR 2SA1162-G
Q3019	8-729-230-49	s	TRANSISTOR 2SC2712-YG
Q3020	8-729-230-49	s	TRANSISTOR 2SC2712-YG
Q3021	8-729-230-49	s	TRANSISTOR 2SC2712-YG
Q3022	8-729-230-49	s	TRANSISTOR 2SC2712-YG
Q3024	8-729-216-22	s	TRANSISTOR 2SA1162-G
Q3025	1-801-806-11	s	TRANSISTOR DTC144EKA
Q3026	1-801-806-11	s	TRANSISTOR DTC144EKA
Q3027	1-801-806-11	s	TRANSISTOR DTC144EKA
Q3028	1-801-806-11	s	TRANSISTOR DTC144EKA
Q3029	1-801-806-11	s	TRANSISTOR DTC144EKA
Q3030	1-801-806-11	s	TRANSISTOR DTC144EKA
Q3032	1-801-806-11	s	TRANSISTOR DTC144EKA
Q3034	1-801-806-11	s	TRANSISTOR DTC144EKA
Q3035	1-801-806-11	s	TRANSISTOR DTC144EKA
Q3036	1-801-806-11	s	TRANSISTOR DTC144EKA
Q3037	1-801-806-11	s	TRANSISTOR DTC144EKA
R3000	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3001	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3002	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3003	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3004	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3005	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3006	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3007	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3008	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3009	1-216-631-11	s	RESISTOR,CHIP 150 1/10W (2012)
R3010	1-216-631-11	s	RESISTOR,CHIP 150 1/10W (2012)
R3011	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3012	1-216-844-11	s	RESISTOR,CHIP 82K 1/16W 1608
R3013	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3014	1-216-631-11	s	RESISTOR,CHIP 150 1/10W (2012)
R3015	1-216-631-11	s	RESISTOR,CHIP 150 1/10W (2012)
R3016	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3017	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3018	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3019	1-216-631-11	s	RESISTOR,CHIP 150 1/10W (2012)
R3020	1-216-631-11	s	RESISTOR,CHIP 150 1/10W (2012)
R3021	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3022	1-216-803-11	s	RESISTOR,CHIP 33 1/16W (1608)
R3023	1-216-043-91	s	RESISTOR, CHIP 560 1/10W(2125)
R3024	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3025	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3026	1-216-844-11	s	RESISTOR,CHIP 82K 1/16W 1608
R3027	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R3028	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3029	1-216-829-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R3030	1-218-666-11	s	RESISTOR,CHIP 82 1/16W (1608)
R3031	1-218-704-11	s	RESISTOR,CHIP 3.3K 1/16W(1608)
R3032	1-218-700-11	s	RESISTOR,CHIP 2.2K 1/16W(1608)
R3033	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3034	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3035	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3036	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3037	1-216-844-11	s	RESISTOR,CHIP 82K 1/16W 1608
R3039	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608

(BB BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R3040	1-216-842-11	s	RESISTOR,CHIP 56K 1/16W(1608)
R3042	1-218-707-11	s	RESISTOR,CHIP 4.3K 1/16W(1608)
R3043	1-216-829-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R3044	1-218-684-11	s	RESISTOR,CHIP 470 1/16W (1608)
R3045	1-216-829-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R3047	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3048	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3049	1-218-670-11	s	RESISTOR,CHIP 120 1/16W (1608)
R3050	1-216-829-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R3051	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3052	1-216-828-11	s	RESISTOR, CHIP 3.9K 1/16W 1608
R3053	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3054	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3055	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3056	1-218-694-11	s	RESISTOR,CHIP 1.2K1/16W(1608)
R3057	1-218-680-11	s	RESISTOR,CHIP 330 1/16W(1608)
R3058	1-216-831-11	s	RESISTOR,CHIP 6.8K 1/16W(1608)
R3059	1-218-731-11	s	RESISTOR,METAL 43K 1/16
R3060	1-216-829-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R3062	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3063	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3064	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3066	1-216-829-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R3067	1-218-694-11	s	RESISTOR,CHIP 1.2K1/16W(1608)
R3068	1-216-828-11	s	RESISTOR, CHIP 3.9K 1/16W 1608
R3069	1-218-680-11	s	RESISTOR,CHIP 330 1/16W(1608)
R3070	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3071	1-216-829-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R3072	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3073	1-216-829-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R3074	1-216-828-11	s	RESISTOR, CHIP 3.9K 1/16W 1608
R3075	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R3076	1-216-797-11	s	RESISTOR,CHIP 10 1/16W 1608
R3077	1-216-631-11	s	RESISTOR,CHIP 150 1/10W (2012)
R3078	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R3079	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R3080	1-216-631-11	s	RESISTOR,CHIP 150 1/10W (2012)
R3081	1-216-797-11	s	RESISTOR,CHIP 10 1/16W 1608
R3082	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R3083	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R3084	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R3085	1-216-797-11	s	RESISTOR,CHIP 10 1/16W 1608
R3086	1-216-631-11	s	RESISTOR,CHIP 150 1/10W (2012)
R3087	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R3088	1-216-631-11	s	RESISTOR,CHIP 150 1/10W (2012)
R3089	1-216-797-11	s	RESISTOR,CHIP 10 1/16W 1608
R3090	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R3091	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R3092	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R3093	1-216-797-11	s	RESISTOR,CHIP 10 1/16W 1608
R3094	1-216-631-11	s	RESISTOR,CHIP 150 1/10W (2012)
R3095	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R3096	1-216-797-11	s	RESISTOR,CHIP 10 1/16W 1608
R3097	1-216-631-11	s	RESISTOR,CHIP 150 1/10W (2012)
R3098	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R3099	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R3100	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R3101	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R3102	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)

(BB BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R3103	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3104	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3105	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3106	1-216-844-11	s	RESISTOR,CHIP 82K 1/16W 1608
R3107	1-216-844-11	s	RESISTOR,CHIP 82K 1/16W 1608
R3108	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3109	1-216-817-11	s	RESISTOR,CHIP 470 1/16W 1608
R3110	1-216-844-11	s	RESISTOR,CHIP 82K 1/16W 1608
R3111	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3112	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R3113	1-216-797-11	s	RESISTOR,CHIP 10 1/16W 1608
R3114	1-216-815-11	s	RESISTOR,CHIP 330 1/16W 1608
R3115	1-216-815-11	s	RESISTOR,CHIP 330 1/16W 1608
R3116	1-216-815-11	s	RESISTOR,CHIP 330 1/16W 1608
R3117	1-216-815-11	s	RESISTOR,CHIP 330 1/16W 1608
R3118	1-216-844-11	s	RESISTOR,CHIP 82K 1/16W 1608
R3119	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3120	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3121	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3122	1-216-844-11	s	RESISTOR,CHIP 82K 1/16W 1608
R3123	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3124	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3125	1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R3126	1-216-803-11	s	RESISTOR,CHIP 33 1/16W (1608)
R3127	1-216-844-11	s	RESISTOR,CHIP 82K 1/16W 1608
R3128	1-216-847-11	s	RESISTOR, CHIP 150K 1/16W 1608
R3129	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3130	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3131	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3132	1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R3133	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3134	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R3135	1-216-803-11	s	RESISTOR,CHIP 33 1/16W (1608)
R3136	1-216-846-11	s	RESISTOR,CHIP 120K 1/16W (1608
R3137	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3138	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3139	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3140	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3141	1-216-844-11	s	RESISTOR,CHIP 82K 1/16W 1608
R3142	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R3143	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R3144	1-218-767-11	s	RESISTOR,CHIP 430K 1/10W(2012)
R3145	1-216-838-11	s	RESISTOR CHIP 27K 1/16W(1608)
R3146	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R3147	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3148	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3149	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3150	1-216-863-11	s	RESISTOR,CHIP 3.3M 1/16W 1608
R3151	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3152	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3153	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3154	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3155	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3156	1-216-797-11	s	RESISTOR,CHIP 10 1/16W 1608
R3157	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3158	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3159	1-216-797-11	s	RESISTOR,CHIP 10 1/16W 1608
R3160	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3161	1-216-797-11	s	RESISTOR,CHIP 10 1/16W 1608

(BB BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R3162	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3163	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3164	1-216-816-11	s	RESISTOR, CHIP 390 1/16W 1608
R3165	1-216-797-11	s	RESISTOR,CHIP 10 1/16W 1608
R3166	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3167	1-216-816-11	s	RESISTOR, CHIP 390 1/16W 1608
R3168	1-216-797-11	s	RESISTOR,CHIP 10 1/16W 1608
R3169	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3170	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3171	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3172	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3173	1-216-817-11	s	RESISTOR,CHIP 470 1/16W 1608
R3175	1-216-817-11	s	RESISTOR,CHIP 470 1/16W 1608
R3177	1-216-817-11	s	RESISTOR,CHIP 470 1/16W 1608
R3179	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3180	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3181	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3182	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3183	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3184	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R3185	1-216-831-11	s	RESISTOR,CHIP 6.8K 1/16W(1608)
R3186	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3187	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3188	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3189	1-216-835-11	s	RESISTOR,CHIP 15K 1/16W
R3190	1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R3191	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3192	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3193	1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R3194	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3195	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3196	1-218-732-11	s	RESISTOR,CHIP 47K 1/16W(1608)
R3197	1-218-690-11	s	RESISTOR,CHIP 820 1/16W (1608)
R3198	1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R3199	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3200	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3201	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3202	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3203	1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R3204	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3205	1-218-690-11	s	RESISTOR,CHIP 820 1/16W (1608)
R3206	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R3207	1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R3208	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3209	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3210	1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R3211	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3212	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3213	1-218-690-11	s	RESISTOR,CHIP 820 1/16W (1608)
R3214	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3215	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3216	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3217	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3218	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3219	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3220	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3221	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3222	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3223	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)

(BB BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R3224	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3225	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R3226	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3227	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R3228	1-218-750-11	s	RESISTOR,CHIP 270K 1/16W(1608)
R3229	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3230	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3231	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3232	1-216-829-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R3233	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3234	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R3235	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3236	1-216-817-11	s	RESISTOR,CHIP 470 1/16W 1608
R3237	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3238	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R3239	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3240	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3241	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3242	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3243	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3244	1-216-817-11	s	RESISTOR,CHIP 470 1/16W 1608
R3245	1-218-690-11	s	RESISTOR,CHIP 820 1/16W (1608)
R3246	1-216-817-11	s	RESISTOR,CHIP 470 1/16W 1608
R3247	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R3248	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3249	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3250	1-216-851-11	s	RESISTOR,CHIP 330K 1/16W 1608
R3251	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3252	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R3253	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3255	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R3256	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R3258	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3259	1-218-696-11	s	RESISTOR,CHIP 1.5K 1/16W(1608)
R3260	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3262	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3263	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R3264	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3265	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3266	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3267	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3268	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R3269	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3270	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3271	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3272	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3273	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3274	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3275	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3276	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3277	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R3278	1-216-797-11	s	RESISTOR,CHIP 10 1/16W 1608
R3279	1-216-797-11	s	RESISTOR,CHIP 10 1/16W 1608
R3280	1-216-857-11	s	RESISTOR,CHIP 1M 1/16W(1608)
R3281	1-216-829-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R3282	1-216-829-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R3283	1-216-823-11	s	RESISTOR, CHIP 1.5K 1/16W
R3284	1-216-830-11	s	RESISTOR,CHIP 5.6K 1/16W 1608
R3285	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)

(BB BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R3286	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3287	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3288	1-216-829-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R3289	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R3290	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R3291	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3292	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3293	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3295	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3296	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R3297	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3298	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R3301	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3303	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3304	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3305	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R3306	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R3307	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R3308	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R3309	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3310	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3311	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3312	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3313	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3314	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3315	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3316	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R3319	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R3320	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R3321	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R3322	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R3323	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R3325	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R3326	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R3327	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R3328	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R3329	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3330	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3331	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3332	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3333	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3334	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3335	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3336	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3337	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R3338	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R3339	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R3340	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R3341	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3342	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3343	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3344	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3345	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3346	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3347	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3348	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3349	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3350	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3351	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608

(BB BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R3352	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3353	1-216-827-11	s	RESISTOR, CHIP 3.3K 1/16W 1608
R3354	1-216-827-11	s	RESISTOR, CHIP 3.3K 1/16W 1608
R3355	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R3356	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3357	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3358	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3359	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3362	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R3363	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3364	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3365	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3366	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R3367	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3368	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3369	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R3371	1-216-839-11	s	RESISTOR,CHIP 33K 1/16W 1608
R3372	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3373	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3374	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3375	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3376	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3377	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3378	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3379	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3380	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3381	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3382	1-216-831-11	s	RESISTOR,CHIP 6.8K 1/16W(1608)
R3383	1-216-831-11	s	RESISTOR,CHIP 6.8K 1/16W(1608)
R3384	1-216-831-11	s	RESISTOR,CHIP 6.8K 1/16W(1608)
R3385	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R3387	1-216-831-11	s	RESISTOR,CHIP 6.8K 1/16W(1608)
R3388	1-216-831-11	s	RESISTOR,CHIP 6.8K 1/16W(1608)
R3389	1-216-831-11	s	RESISTOR,CHIP 6.8K 1/16W(1608)
R3390	1-216-831-11	s	RESISTOR,CHIP 6.8K 1/16W(1608)
R3391	1-216-831-11	s	RESISTOR,CHIP 6.8K 1/16W(1608)
R3392	1-216-831-11	s	RESISTOR,CHIP 6.8K 1/16W(1608)
R3393	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3442	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R3444	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R3445	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R3446	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R3447	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3448	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3449	1-216-828-11	s	RESISTOR, CHIP 3.9K 1/16W 1608
R3450	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R3452	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R3454	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R3455	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R3456	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R3457	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R3458	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R3459	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R3460	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3461	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R3464	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
RB3000	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB3001	1-233-575-11	s	RES, CHIP NETWORK 22

(BB BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
RB3002	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB3003	1-233-575-11	s	RES, CHIP NETWORK 22
RB3004	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB3005	1-233-575-11	s	RES, CHIP NETWORK 22
RB3006	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB3007	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB3008	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB3009	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB3010	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB3011	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB3012	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB3013	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB3014	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB3015	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB3016	1-233-574-11	s	RESISTOR,CHIP NETWORK 10
RB3017	1-233-574-11	s	RESISTOR,CHIP NETWORK 10
RB3018	1-233-574-11	s	RESISTOR,CHIP NETWORK 10
RB3019	1-233-574-11	s	RESISTOR,CHIP NETWORK 10
RB3020	1-233-575-11	s	RES, CHIP NETWORK 22
RB3021	1-233-574-11	s	RESISTOR,CHIP NETWORK 10
RB3022	1-233-574-11	s	RESISTOR,CHIP NETWORK 10
RB3035	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB3036	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB3037	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB3038	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB3039	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB3040	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB3041	1-239-409-11	s	RESISTOR NETWORK 47 (1608)
RB3042	1-233-575-11	s	RES, CHIP NETWORK 22
RB3043	1-233-575-11	s	RES, CHIP NETWORK 22
RB3044	1-233-575-11	s	RES, CHIP NETWORK 22
RB3045	1-233-575-11	s	RES, CHIP NETWORK 22
RB3046	1-233-575-11	s	RES, CHIP NETWORK 22
RB3047	1-233-575-11	s	RES, CHIP NETWORK 22
RB3048	1-233-575-11	s	RES, CHIP NETWORK 22
RB3049	1-233-575-11	s	RES, CHIP NETWORK 22
RB3050	1-233-575-11	s	RES, CHIP NETWORK 22
TH3000	1-809-020-11	s	THERMISTOR
TP3000	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3001	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3002	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3003	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3004	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3005	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3006	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3007	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3008	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3009	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3010	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3011	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3012	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3013	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3014	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3015	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3016	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3017	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3018	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3019	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)

(BB BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
TP3020	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3021	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3022	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3023	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3024	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3025	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3026	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3027	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3028	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3029	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3030	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3031	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3032	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3033	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3034	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3035	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3036	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3037	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3038	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3039	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3040	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3041	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3042	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3043	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3044	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3045	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP3046	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
X3000	1-781-163-11	s	VIBRATOR, OSCILLATOR (24.0MHz)
X3001	1-795-283-21	s	OSCILLATOR, CRYSTAL (68.0MHz)
X3002	1-781-665-11	s	VIBRATOR, CRYSTAL (33.3MHz)
X3003	1-795-282-21	s	OSCILLATOR, CRYSTAL (130.0MHz)

BC BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-1136-158-A	s	MOUNTED CIRCUIT BOARD, BC
C4500	1-164-505-11	s	CAPACITOR,CHIP CERAMIC 2.2MF
C4501	1-164-505-11	s	CAPACITOR,CHIP CERAMIC 2.2MF
C4502	1-126-206-11	s	CAPACITOR, ELECT 100MF/6.3V
C4503	1-126-206-11	s	CAPACITOR, ELECT 100MF/6.3V
C4504	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C4505	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C4506	1-128-004-11	s	CAPACITOR ERECT 10MF/16V(CHIP)
C4507	1-128-004-11	s	CAPACITOR ERECT 10MF/16V(CHIP)
C4508	1-164-505-11	s	CAPACITOR,CHIP CERAMIC 2.2MF
C4509	1-126-206-11	s	CAPACITOR, ELECT 100MF/6.3V
C4510	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C4511	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C4512	1-128-004-11	s	CAPACITOR ERECT 10MF/16V(CHIP)
C4513	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C4514	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C4515	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C4516	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C4517	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C4518	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C4519	1-164-505-11	s	CAPACITOR,CHIP CERAMIC 2.2MF
C4520	1-126-206-11	s	CAPACITOR, ELECT 100MF/6.3V
C4521	1-109-982-11	s	CAPACITOR,CHIP CERAMIC 1MF/10V
C4522	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C4523	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C4524	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C4525	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C4526	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C4527	1-110-666-11	s	CAPACITOR,ELECT 22MF/6.3V(BP)
C4528	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C4529	1-110-666-11	s	CAPACITOR,ELECT 22MF/6.3V(BP)
C4530	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C4531	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C4532	1-164-506-11	s	CAPACITOR,CERAMIC 4.7MF/16V
C4533	1-110-666-11	s	CAPACITOR,ELECT 22MF/6.3V(BP)
C4534	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C4535	1-113-701-21	s	CAPACITOR,ELECT 22MF/16V (NP)
C4537	1-127-715-11	s	CAP, CHIP CERAMIC 0.22MF B1608
C4538	1-127-715-11	s	CAP, CHIP CERAMIC 0.22MF B1608
C4539	1-127-715-11	s	CAP, CHIP CERAMIC 0.22MF B1608
C4540	1-127-715-11	s	CAP, CHIP CERAMIC 0.22MF B1608
C4541	1-124-778-00	s	CAPACITOR,ELECT 22MF/6.3V
CN4500	1-785-305-21	o	CONNECTOR, BOARD TO BOARD
CN4501	1-793-797-21	o	CONNECTOR, BOARD TO BOARD
CN4502	1-793-962-11	s	CONNECTOR, DVI (INPUT B)
D4500	8-719-024-77	s	DIODE HN1D03FU-TE85L
D4501	8-719-024-77	s	DIODE HN1D03FU-TE85L
D4502	8-719-024-77	s	DIODE HN1D03FU-TE85L
D4503	8-719-024-77	s	DIODE HN1D03FU-TE85L
D4504	8-719-073-01	s	DIODE MA111-(K8).S0
D4505	8-719-073-01	s	DIODE MA111-(K8).S0
D4506	8-719-977-95	s	DIODE DTZ2.4B-TT11 (5MA)
D4507	8-719-024-77	s	DIODE HN1D03FU-TE85L
D4508	8-719-800-76	s	DIODE 1SS226
D4509	8-719-800-76	s	DIODE 1SS226
D4510	8-719-800-76	s	DIODE 1SS226
D4511	8-719-158-37	s	DIODE RD9.1SB2

(BC BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
D4512	8-719-800-76	s	DIODE 1SS226
D4513	8-719-158-15	s	DIODE RD5.6SB
D4514	8-719-914-43	s	DIODE DAN202K
D4515	8-719-158-15	s	DIODE RD5.6SB
FB4500	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB4501	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB4502	1-414-921-11	s	INDUCTOR, FERRITE BEAD
IC4500	8-759-835-10	s	IC TFP201PZP
IC4501	8-759-661-55	s	IC ST24FC21M6TR
IC4502	8-759-661-55	s	IC ST24FC21M6TR
IC4503	8-759-277-63	s	IC TC7W14FU (TE12R)
IC4504	8-759-449-58	s	IC LM7131BCM5X
L4500	1-412-006-31	s	CHIP INDUCTOR 10UH (2012)
Q4503	8-729-900-53	s	TRANSISTOR DTC114EK
Q4504	8-729-900-53	s	TRANSISTOR DTC114EK
R4500	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R4501	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R4502	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R4503	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R4504	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R4505	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R4506	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R4507	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R4508	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R4509	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R4510	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R4511	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R4512	1-216-817-11	s	RESISTOR,CHIP 470 1/16W 1608
R4513	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R4514	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R4515	1-216-817-11	s	RESISTOR,CHIP 470 1/16W 1608
R4516	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R4517	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R4518	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R4520	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R4521	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R4522	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R4524	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R4525	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R4526	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R4527	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R4528	1-218-672-11	s	RESISTOR,CHIP 150 1/16W(1608)
R4529	1-218-672-11	s	RESISTOR,CHIP 150 1/16W(1608)
R4530	1-216-844-11	s	RESISTOR,CHIP 82K 1/16W 1608
R4531	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R4532	1-218-672-11	s	RESISTOR,CHIP 150 1/16W(1608)
R4533	1-218-672-11	s	RESISTOR,CHIP 150 1/16W(1608)
R4534	1-216-844-11	s	RESISTOR,CHIP 82K 1/16W 1608
R4535	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R4536	1-216-803-11	s	RESISTOR,CHIP 33 1/16W (1608)
R4537	1-216-818-11	s	RESISTOR, CHIP 560 1/16W 1608
R4538	1-216-844-11	s	RESISTOR,CHIP 82K 1/16W 1608
R4539	1-218-672-11	s	RESISTOR,CHIP 150 1/16W(1608)
R4540	1-218-672-11	s	RESISTOR,CHIP 150 1/16W(1608)
R4541	1-216-844-11	s	RESISTOR,CHIP 82K 1/16W 1608
R4542	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R4543	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)

(BC BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R4544	1-216-844-11	s	RESISTOR,CHIP 82K 1/16W 1608
R4545	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R4546	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R4547	1-216-041-00	s	RESISTOR, CHIP 470 1/10W(2012)
R4548	1-216-041-00	s	RESISTOR, CHIP 470 1/10W(2012)
R4550	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R4551	1-216-033-00	s	RESISTOR,CHIP 220 1/10W(2012)
R4552	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R4553	1-216-849-11	s	RESISTOR,CHIP 220K 1/16W 1608
R4555	1-216-041-00	s	RESISTOR, CHIP 470 1/10W(2012)
R4556	1-216-041-00	s	RESISTOR, CHIP 470 1/10W(2012)
R4557	1-216-041-00	s	RESISTOR, CHIP 470 1/10W(2012)
R4558	1-216-041-00	s	RESISTOR, CHIP 470 1/10W(2012)
R4559	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
RB4500	1-233-575-11	s	RES, CHIP NETWORK 22
RB4501	1-233-575-11	s	RES, CHIP NETWORK 22
RB4502	1-233-575-11	s	RES, CHIP NETWORK 22
RB4503	1-233-575-11	s	RES, CHIP NETWORK 22
RB4504	1-233-575-11	s	RES, CHIP NETWORK 22
RB4505	1-233-575-11	s	RES, CHIP NETWORK 22
RB4506	1-233-575-11	s	RES, CHIP NETWORK 22
RB4507	1-233-575-11	s	RES, CHIP NETWORK 22
RB4508	1-233-575-11	s	RES, CHIP NETWORK 22
RB4509	1-233-575-11	s	RES, CHIP NETWORK 22
RB4510	1-233-575-11	s	RES, CHIP NETWORK 22
RB4511	1-233-575-11	s	RES, CHIP NETWORK 22
RY4500	1-755-438-21	s	RELAY, LATCHING

QC BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-1275-195-A	s	MOUNTED CIRCUIT BOARD, QC
1pc	1-756-157-11	s	BATTERY, LITHIUM
1pc	1-761-392-11	s	PRINTED WIRING BOARD, QC
1pc	1-815-229-11	o	CONNECTOR
3pcs	2-280-622-11	s	SUPPORT (M3),HEXAGON
4pcs	7-621-255-75	s	SCREW +P 2X12 (EP-FE/ZN/CM2)
4pcs	7-622-205-05	s	NUT M2 TYPE2
6pcs	7-682-145-01	s	SCREW,+P 3X4(EP-FE/ZN/CM2)
2pcs	7-622-205-05	s	NUT M2 TYPE2
2pcs	7-627-554-27	s	SCREW +P2X6(EP-FE/CU.NI,CR)
BT9001	1-756-156-11	o	HOLDER, BATTERY
C9001	1-128-995-11	s	CAPACITOR ELECT 100MF / 10 V
C9002	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9003	1-128-995-11	s	CAPACITOR ELECT 100MF / 10 V
C9004	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9006	1-164-506-11	s	CAPACITOR,CERAMIC 4.7MF/16V
C9011	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9012	1-164-506-11	s	CAPACITOR,CERAMIC 4.7MF/16V
C9013	1-163-235-11	s	CAPACITOR,CHIP CERAMIC22PF/50V
C9014	1-128-995-11	s	CAPACITOR ELECT 100MF / 10 V
C9016	1-128-995-11	s	CAPACITOR ELECT 100MF / 10 V
C9017	1-128-995-11	s	CAPACITOR ELECT 100MF / 10 V
C9018	1-128-995-11	s	CAPACITOR ELECT 100MF / 10 V
C9019	1-128-995-11	s	CAPACITOR ELECT 100MF / 10 V
C9024	1-164-506-11	s	CAPACITOR,CERAMIC 4.7MF/16V
C9025	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9026	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V
C9027	1-163-243-11	s	CAPACITOR CHIP CERAMIC 47PF/50
C9028	1-163-243-11	s	CAPACITOR CHIP CERAMIC 47PF/50
C9029	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V
C9030	1-163-243-11	s	CAPACITOR CHIP CERAMIC 47PF/50
C9031	1-163-243-11	s	CAPACITOR CHIP CERAMIC 47PF/50
C9032	1-163-251-11	s	CAPACITOR CERAMIC 100PF/50V
C9033	1-163-251-11	s	CAPACITOR CERAMIC 100PF/50V
C9034	1-163-251-11	s	CAPACITOR CERAMIC 100PF/50V
C9035	1-164-506-11	s	CAPACITOR,CERAMIC 4.7MF/16V
C9036	1-135-344-11	s	CAPACITOR,SOLID ELECT 270MF
C9037	1-135-344-11	s	CAPACITOR,SOLID ELECT 270MF
C9038	1-135-344-11	s	CAPACITOR,SOLID ELECT 270MF
C9039	1-164-506-11	s	CAPACITOR,CERAMIC 4.7MF/16V
C9040	1-164-506-11	s	CAPACITOR,CERAMIC 4.7MF/16V
C9041	1-164-506-11	s	CAPACITOR,CERAMIC 4.7MF/16V
C9042	1-164-506-11	s	CAPACITOR,CERAMIC 4.7MF/16V
C9043	1-163-235-11	s	CAPACITOR,CHIP CERAMIC22PF/50V
C9044	1-163-235-11	s	CAPACITOR,CHIP CERAMIC22PF/50V
C9045	1-163-235-11	s	CAPACITOR,CHIP CERAMIC22PF/50V
C9046	1-163-235-11	s	CAPACITOR,CHIP CERAMIC22PF/50V
C9047	1-163-259-91	s	CAPACITOR,CHIP CERAMIC 220PF
C9048	1-163-259-91	s	CAPACITOR,CHIP CERAMIC 220PF
C9049	1-163-227-11	s	CAPACITOR CERAMIC 10PF/50V(CH)
C9050	1-163-227-11	s	CAPACITOR CERAMIC 10PF/50V(CH)
C9051	1-163-227-11	s	CAPACITOR CERAMIC 10PF/50V(CH)
C9052	1-163-227-11	s	CAPACITOR CERAMIC 10PF/50V(CH)
C9053	1-163-227-11	s	CAPACITOR CERAMIC 10PF/50V(CH)
C9054	1-163-227-11	s	CAPACITOR CERAMIC 10PF/50V(CH)
C9055	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V
C9061	1-128-995-11	s	CAPACITOR ELECT 100MF / 10 V
C9101	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V

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(QC BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C9102	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9103	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9104	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9105	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9106	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9107	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9108	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9109	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9110	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9111	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9112	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9113	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9114	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9115	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9116	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9117	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9118	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9119	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9120	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9121	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9122	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9123	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9124	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9125	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9126	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9127	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9128	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9129	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9130	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9131	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9132	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9133	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9134	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9135	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9136	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9137	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9138	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9141	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9142	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9143	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9144	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9145	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9146	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9147	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9148	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9149	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9150	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9151	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9152	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9153	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9155	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9156	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9157	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C9158	1-165-319-11	s	CAPACITOR,CERAMIC 0.1MF/50V
CN9004	1-779-420-11	s	CONNECTOR, BOARD TO BOARD 280P
CN9006	1-573-290-21	s	PIN,CONNECTOR (4P)(SMD)(1.5MM)
CN9007	1-774-932-21	s	CONNECTOR, FFC/FPC
CN9008	1-815-232-11	o	CONNECTOR
CN9009	1-815-230-11	o	CONNECTOR

(QC BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
CN9010	1-785-846-11	o	CONNECTOR, BOARD TO BOARD 40P
CN9012	1-691-551-11	o	PIN, CONNECTOR (SMD) 8P
D9001	8-719-072-85	s	DIODE NNCD6.2MG-T2
D9002	8-719-072-85	s	DIODE NNCD6.2MG-T2
D9003	8-719-027-14	s	DIODE 1SS321-TE85L (0.05A)
FL9012	1-239-899-21	s	FILTER, CHIP EMI
FL9013	1-239-899-21	s	FILTER, CHIP EMI
FL9014	1-239-899-21	s	FILTER, CHIP EMI
IC9001	6-700-131-01	s	IC AT93C46-10SC-2.7-TP
IC9002	8-759-638-12	s	IC R5C478II-BGA261A
IC9004	6-700-129-01	s	IC GD82559ER
IC9005	8-759-526-02	s	IC MIC2563A-1BSM-T&R
IC9008	8-759-998-49	s	IC MB3771PF
IC9009	8-759-599-01	s	IC TC74VHCT14AFT(EL)
IC9010	8-759-672-72	s	IC LM3526MX-H
IC9011	8-759-491-50	s	IC TC74VHCT244AFT(EL)
IC9012	6-800-058-01	s	IC ISPLSI2032VE-110LT44-QCV2
IC9015	6-700-142-11	s	IC DS90C385MTDX
L9001	1-414-445-11	s	FERRITE, EMI (SMD)
L9002	1-414-445-11	s	FERRITE, EMI (SMD)
L9003	1-414-445-11	s	FERRITE, EMI (SMD)
L9004	1-414-445-11	s	FERRITE, EMI (SMD)
L9005	1-469-568-11	s	INDUCTOR, FERRITE BEAD
L9006	1-469-112-11	s	FERRITE, EMI (SMD)
L9007	1-469-112-11	s	FERRITE, EMI (SMD)
L9008	1-469-568-11	s	INDUCTOR, FERRITE BEAD
L9009	1-469-112-11	s	FERRITE, EMI (SMD)
L9010	1-469-112-11	s	FERRITE, EMI (SMD)
L9011	1-469-112-11	s	FERRITE, EMI (SMD)
L9012	1-469-112-11	s	FERRITE, EMI (SMD)
L9013	1-469-112-11	s	FERRITE, EMI (SMD)
L9014	1-469-112-11	s	FERRITE, EMI (SMD)
L9015	1-469-112-11	s	FERRITE, EMI (SMD)
L9016	1-414-075-11	s	INDUCTOR (SMALL TYPE)
L9017	1-414-075-11	s	INDUCTOR (SMALL TYPE)
L9018	1-414-075-11	s	INDUCTOR (SMALL TYPE)
L9019	1-414-075-11	s	INDUCTOR (SMALL TYPE)
L9020	1-414-075-11	s	INDUCTOR (SMALL TYPE)
L9021	1-414-075-11	s	INDUCTOR (SMALL TYPE)
Q9001	8-729-027-49	s	TRANSISTOR DTC123EKA-T146
Q9002	8-729-027-49	s	TRANSISTOR DTC123EKA-T146
R9001	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R9002	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R9003	1-216-089-00	s	RESISTOR CHIP 47K 1/10W(2012)
R9004	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R9005	1-216-037-00	s	RESISTOR,CHIP 330 1/10W(2012)
R9006	1-216-295-00	s	CONDUCTOR, CHIP (2012)
R9007	1-216-097-00	s	RESISTOR CHIP 100K 1/10W(2012)
R9008	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R9009	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R9010	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R9011	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R9012	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R9013	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R9014	1-216-013-00	s	RESISTOR,CHIP 33 1/10W(2012)
R9015	1-216-089-00	s	RESISTOR CHIP 47K 1/10W(2012)

(QC BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R9016	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R9017	1-216-013-00	s	RESISTOR,CHIP 33 1/10W(2012)
R9018	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R9019	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R9020	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R9021	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R9022	1-216-013-00	s	RESISTOR,CHIP 33 1/10W(2012)
R9023	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R9024	1-216-295-00	s	CONDUCTOR, CHIP (2012)
R9025	1-208-784-11	s	RESISTOR,CHIP 1.2K 1/10W(2012)
R9026	1-208-782-11	s	RESISTOR,CHIP 1K 1/10W (2012)
R9029	1-216-013-00	s	RESISTOR,CHIP 33 1/10W(2012)
R9030	1-218-325-11	s	RESISTOR,CHIP 120 1/4W (3225)
R9031	1-220-258-11	s	RESISTOR, CHIP 100 1/4W (3225)
R9032	1-216-013-00	s	RESISTOR,CHIP 33 1/10W(2012)
R9034	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R9035	1-216-295-00	s	CONDUCTOR, CHIP (2012)
R9036	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R9037	1-216-150-91	s	RESISTOR, CHIP 10 1/8W (3216)
R9038	1-216-150-91	s	RESISTOR, CHIP 10 1/8W (3216)
R9039	1-216-150-91	s	RESISTOR, CHIP 10 1/8W (3216)
R9041	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R9042	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R9043	1-216-075-00	s	RESISTOR CHIP 12K 1/10W(2012)
R9044	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R9045	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R9047	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R9048	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R9049	1-216-013-00	s	RESISTOR,CHIP 33 1/10W(2012)
R9050	1-216-013-00	s	RESISTOR,CHIP 33 1/10W(2012)
R9051	1-216-013-00	s	RESISTOR,CHIP 33 1/10W(2012)
R9052	1-220-256-11	s	RESISTOR CHIP 75 1/4W (3225)
R9053	1-220-256-11	s	RESISTOR CHIP 75 1/4W (3225)
R9054	1-220-256-11	s	RESISTOR CHIP 75 1/4W (3225)
R9055	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R9060	1-208-782-11	s	RESISTOR,CHIP 1K 1/10W (2012)
R9061	1-216-013-00	s	RESISTOR,CHIP 33 1/10W(2012)
R9062	1-208-784-11	s	RESISTOR,CHIP 1.2K 1/10W(2012)
R9064	1-216-295-00	s	CONDUCTOR, CHIP (2012)
R9065	1-216-295-00	s	CONDUCTOR, CHIP (2012)
R9066	1-216-295-00	s	CONDUCTOR, CHIP (2012)
R9067	1-216-295-00	s	CONDUCTOR, CHIP (2012)
R9070	1-208-784-11	s	RESISTOR,CHIP 1.2K 1/10W(2012)
R9071	1-208-784-11	s	RESISTOR,CHIP 1.2K 1/10W(2012)
R9072	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R9073	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R9074	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R9075	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R9076	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
RB9001	1-234-524-11	s	RESISITOR CHIP NETWORK 33
RB9002	1-234-524-11	s	RESISITOR CHIP NETWORK 33
RB9003	1-233-420-11	s	RESISITOR CHIPP NETWORK 8.2K
RB9004	1-233-414-11	s	RESISTOR,CHIP NETWORK 4.7K
RB9005	1-234-524-11	s	RESISITOR CHIP NETWORK 33
RB9006	1-233-417-11	s	RESISTOR,CHIP NETWORK 1.2K
RB9007	1-233-416-11	s	RESISTOR,CHIP NETWORK 22K
RB9008	1-234-608-11	s	RESISTOR NETWORK
RB9009	1-233-665-11	s	NETWORK, RES (8 GANG) 47K
RB9010	1-233-416-11	s	RESISTOR,CHIP NETWORK 22K

(QC BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
RB9011	1-233-663-91	s	NETWORK, RES (8 GANG) 4.7K
RB9012	1-233-665-11	s	NETWORK, RES (8 GANG) 47K
RB9013	1-234-524-11	s	RESISITOR CHIP NETWORK 33
RB9014	1-234-524-11	s	RESISITOR CHIP NETWORK 33
RB9015	1-234-524-11	s	RESISITOR CHIP NETWORK 33
RB9016	1-234-524-11	s	RESISITOR CHIP NETWORK 33
RB9017	1-234-524-11	s	RESISITOR CHIP NETWORK 33
RB9018	1-234-524-11	s	RESISITOR CHIP NETWORK 33
RB9019	1-233-663-91	s	NETWORK, RES (8 GANG) 4.7K
RB9020	1-233-663-91	s	NETWORK, RES (8 GANG) 4.7K
RB9021	1-234-524-11	s	RESISITOR CHIP NETWORK 33
RB9022	1-233-414-11	s	RESISTOR,CHIP NETWORK 4.7K
RB9023	1-234-524-11	s	RESISITOR CHIP NETWORK 33
RB9024	1-234-524-11	s	RESISITOR CHIP NETWORK 33
RB9025	1-234-524-11	s	RESISITOR CHIP NETWORK 33
RB9026	1-234-524-11	s	RESISITOR CHIP NETWORK 33
SW9001	1-762-938-11	s	SWITCH, SLIDE 4P
T9001	1-433-893-11	s	TRANSFORMER, PULSE
X9003	1-795-125-21	s	VIBRATOR, CRYSTAL
X9006	1-795-124-11	s	VIBRATOR, CRYSTAL

QA BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-1270-445-A	s	MOUNTED CIRCUIT BOARD, QA
C2000	1-124-589-11	s	CAPACITOR,ELECT 47MF/16V
CN2000	1-580-057-11	o	PIN,CONNECTOR 4P
CN2001	1-778-389-11	o	CONNECTOR, SQUARE TYPE 68P
CN2002	1-694-811-11	s	TERMINAL BOARD ASSY, INPUT/OUT (MONITOR OUT)
D2000	8-719-978-04	s	DIODE DTZ-TT11-3.3B
D2001	8-719-024-77	s	DIODE HN1D03FU-TE85L
D2002	8-719-978-04	s	DIODE DTZ-TT11-3.3B
D2003	8-719-024-77	s	DIODE HN1D03FU-TE85L
FB2000	1-414-231-22	s	INDUCTOR, FERRITE BEAD
FB2001	1-414-231-22	s	INDUCTOR, FERRITE BEAD
FB2002	1-414-231-22	s	INDUCTOR, FERRITE BEAD
FB2003	1-414-231-22	s	INDUCTOR, FERRITE BEAD
IC2000	8-749-011-03	s	IC GP1U26X
J2000	1-694-799-11	s	TERMINAL BOARD ASSY, INPUT (INPUT A)
J2001	1-569-023-11	s	JACK, MODULER 8P (INPUT C)
R2000	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R2001	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R2002	1-216-295-00	s	CONDUCTOR, CHIP (2012)
R2003	1-216-295-00	s	CONDUCTOR, CHIP (2012)

QB BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-1275-197-A	s	MOUNTED CIRCUIT BOARD, QB
C2100	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C2101	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C2102	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C2103	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C2104	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C2105	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C2106	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C2107	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C2108	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C2109	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C2110	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C2111	1-109-994-11	s	CAPACITOR,CHIP CERAMIC 2.2MF B
C2112	1-124-779-00	s	CAPACITOR,ELECT 10MF/16V
C2113	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C2114	1-109-994-11	s	CAPACITOR,CHIP CERAMIC 2.2MF B
C2115	1-164-315-11	s	CAPACITOR,CERAMIC 470PF/50V CH
C2116	1-124-779-00	s	CAPACITOR,ELECT 10MF/16V
C2117	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
CN2100	1-580-789-21	o	PIN,CONNECTOR (SMD) 6P
CN2101	1-760-388-11	o	CONNECTOR PIN (SMD) 9 PIN
CN2102	1-537-797-12	s	TERMINAL BOARD ASSY, I/O (RS-232C)
D2100	8-719-914-43	s	DIODE DAN202K
D2101	8-719-978-65	s	DIODE DTZ-TT11-15B
D2102	8-719-158-37	s	DIODE RD9.1SB2
D2103	8-719-158-37	s	DIODE RD9.1SB2
D2104	8-719-158-37	s	DIODE RD9.1SB2
D2105	8-719-037-53	s	DIODE RD27SB-T1
D2106	8-719-037-53	s	DIODE RD27SB-T1
D2107	8-719-037-53	s	DIODE RD27SB-T1
D2108	8-719-914-42	s	DIODE DA204K
D2109	8-719-037-53	s	DIODE RD27SB-T1
D2110	8-719-914-42	s	DIODE DA204K
D2111	8-719-914-43	s	DIODE DAN202K
D2112	8-719-914-44	s	DIODE DAP202K (DUAL)
D2113	8-719-158-37	s	DIODE RD9.1SB2
D2114	8-719-914-43	s	DIODE DAN202K
D2116	8-719-037-53	s	DIODE RD27SB-T1
D2117	8-719-037-53	s	DIODE RD27SB-T1
D2118	8-719-914-42	s	DIODE DA204K
IC2100	8-759-252-59	s	IC MAX202CSE
IC2101	8-759-285-61	s	IC PC74HC123D-T
J2100	1-563-935-11	s	JACK (DIA 3.5)(BLK) (TRIGGER)
J2101	1-694-800-11	s	TERMINAL BOARD ASSY, INPUT (S VIDEO,VIDEO)
J2102	1-563-935-11	s	JACK (DIA 3.5)(BLK) (CONTROLS-IN)
L2100	1-412-058-11	s	INDUCTOR,SMALL TYPE 10UH
L2101	1-412-363-11	s	FERRITE, EMI (SMD)
L2102	1-412-363-11	s	FERRITE, EMI (SMD)
L2103	1-412-363-11	s	FERRITE, EMI (SMD)
L2104	1-412-058-11	s	INDUCTOR,SMALL TYPE 10UH
Q2100	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q2101	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q2102	1-801-806-11	s	TRANSISTOR DTC144EKA
Q2103	1-801-806-11	s	TRANSISTOR DTC144EKA
Q2104	1-801-806-11	s	TRANSISTOR DTC144EKA
Q2105	1-801-806-11	s	TRANSISTOR DTC144EKA

(QB BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R2100	1-216-829-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R2101	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R2102	1-216-631-11	s	RESISTOR,CHIP 150 1/10W (2012)
R2103	1-216-631-11	s	RESISTOR,CHIP 150 1/10W (2012)
R2104	1-216-631-11	s	RESISTOR,CHIP 150 1/10W (2012)
R2105	1-216-631-11	s	RESISTOR,CHIP 150 1/10W (2012)
R2106	1-216-631-11	s	RESISTOR,CHIP 150 1/10W (2012)
R2107	1-216-631-11	s	RESISTOR,CHIP 150 1/10W (2012)
R2108	1-216-295-00	s	CONDUCTOR, CHIP (2012)
R2109	1-216-295-00	s	CONDUCTOR, CHIP (2012)
R2110	1-216-295-00	s	CONDUCTOR, CHIP (2012)
R2111	1-216-295-00	s	CONDUCTOR, CHIP (2012)
R2112	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R2113	1-216-148-00	s	RESISTOR,CHIP 8.2 1/8W(3216)
R2114	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R2115	1-216-837-11	s	RESISTOR,CHIP 22K 1/16W 1608
R2116	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R2117	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R2118	1-216-829-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R2119	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R2120	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R2121	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R2122	1-216-308-00	s	RESISTOR,CHIP 4.7 1/10W(2012)
R2123	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R2124	1-216-853-11	s	RESISTOR,CHIP 470K 1/16W(1608)
R2125	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R2126	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
RB2100	1-233-576-11	s	RESISTOR,CHIP NETWORK 100
RY2100	1-755-384-21	s	RELAY
TP2100	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP2101	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)

6-4. Parts List for Frame

FRAME

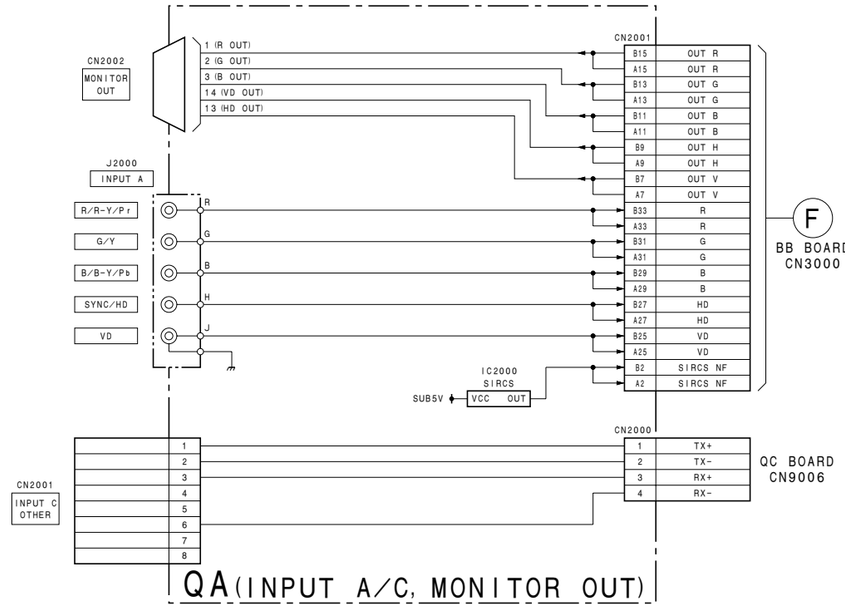
Ref. No. or Q'ty	Part No.	SP	Description
1pc	⚠ 1-468-602-11	s	POWER
1pc	1-543-827-11	s	CLAMP, SLEEVE FERRITE
1pc	⚠ 1-815-295-21	s	INLET, AC (WITH NOISE FILTER)
1pc	1-900-260-74	s	CONNECTOR ASSY, FUSE
1pc	1-900-259-32	s	CONNECTOR ASSY, FLAT 32P
1pc	1-900-259-35	o	CONNECTOR ASSY, RELAY (A)

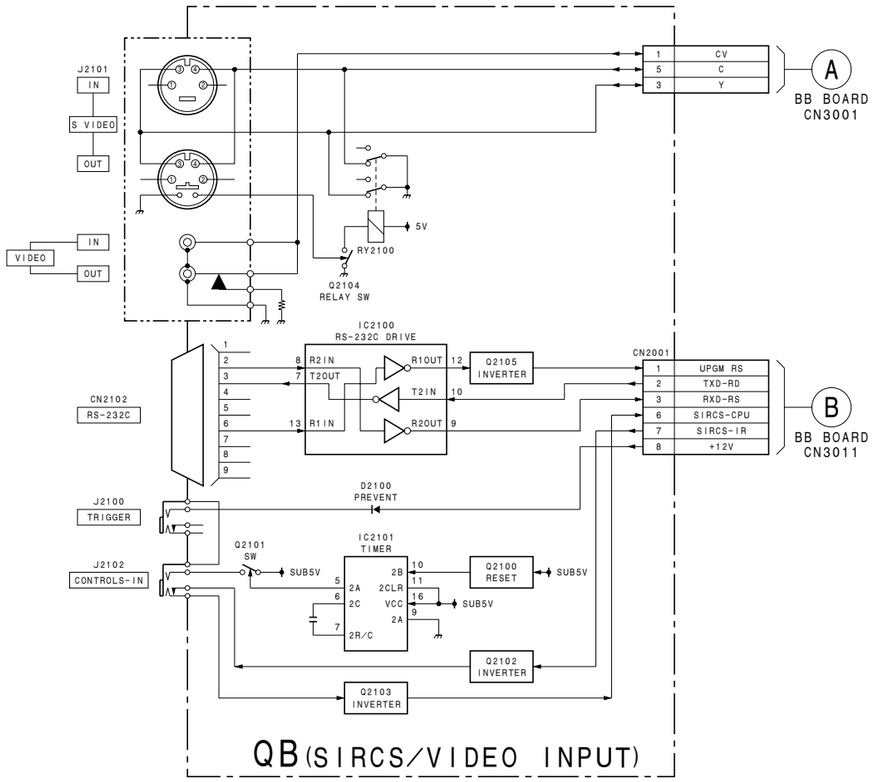
6-5. Packing Materials

PACKING MATERIALS & SUPPLIED ACCESSORIES

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-476-554-11	s	REMOTE COMMANDER (RM-PJM50)
1pc	9-885-010-98	s	COVER, BATTERY (FOR RM-PJM50)
1pc	4-082-642-01	s	OPERATING, INSTRUCTION (JAPANESE, SIMPLIFIED CHINESE)
1pc	4-082-642-11	s	OPERATING, INSTRUCTION (ENGLISH, FRENCH, SPANISH)
1pc	4-082-642-21	s	OPERATING, INSTRUCTION (GERMAN, ITALIAN)
1pc	4-082-643-01	s	INSTALLATION MANUAL FOR DEALER (JAPANESE,ENGLISH,FRENCH,SPANISH, GERMAN,ITALIAN, SIMPLIFIED CHINESE)
1pc	⚠		CORD, POWER (See Section 2 Service Information)

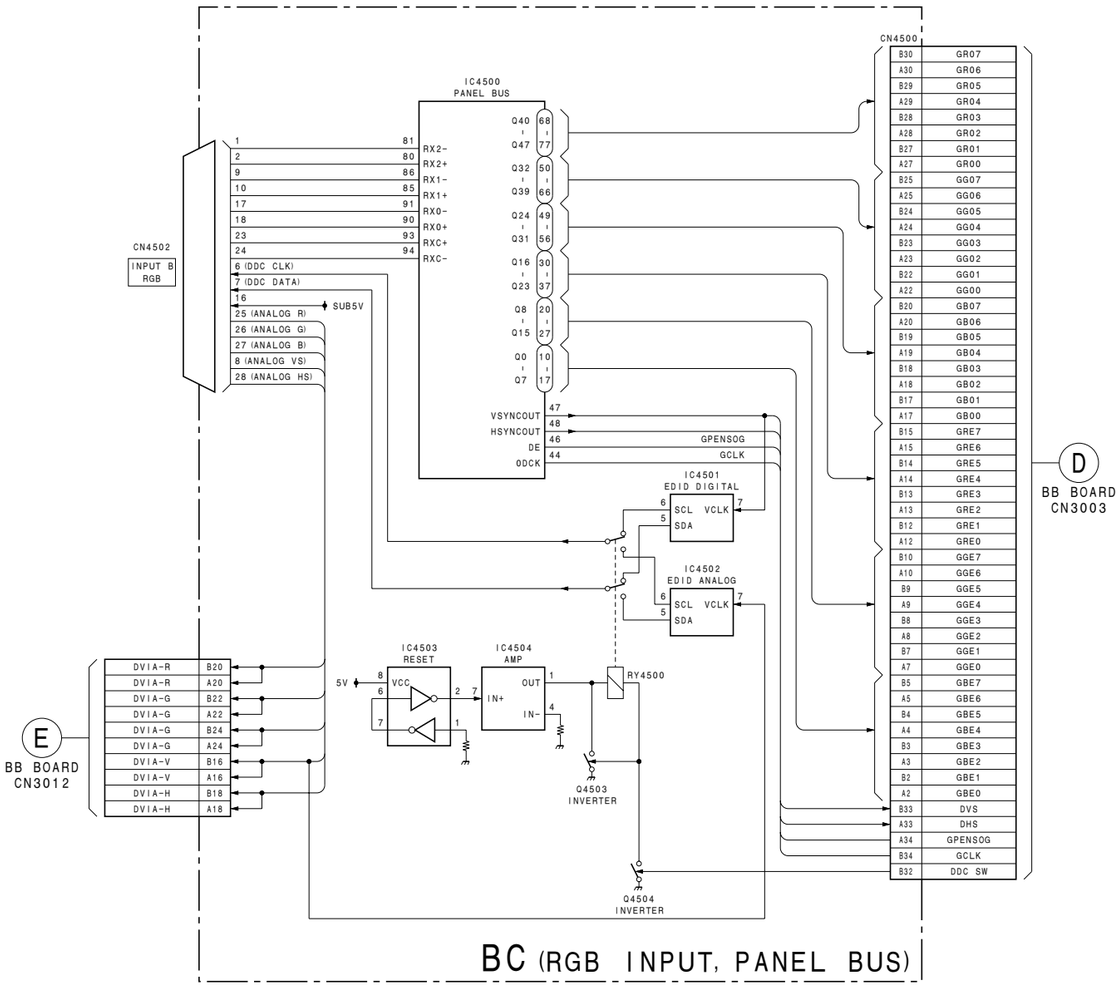
Section 7
Block Diagrams

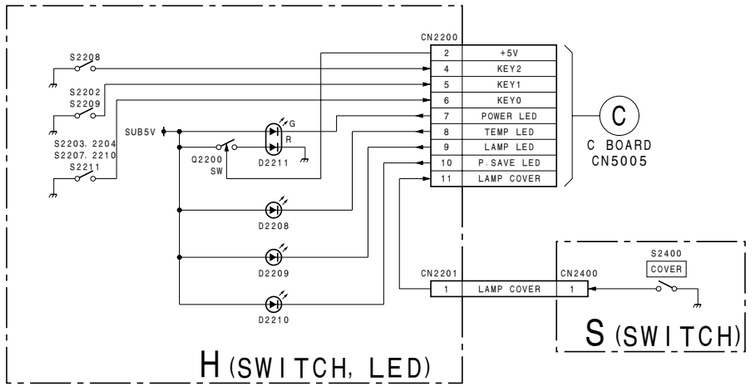




QA BLOCK

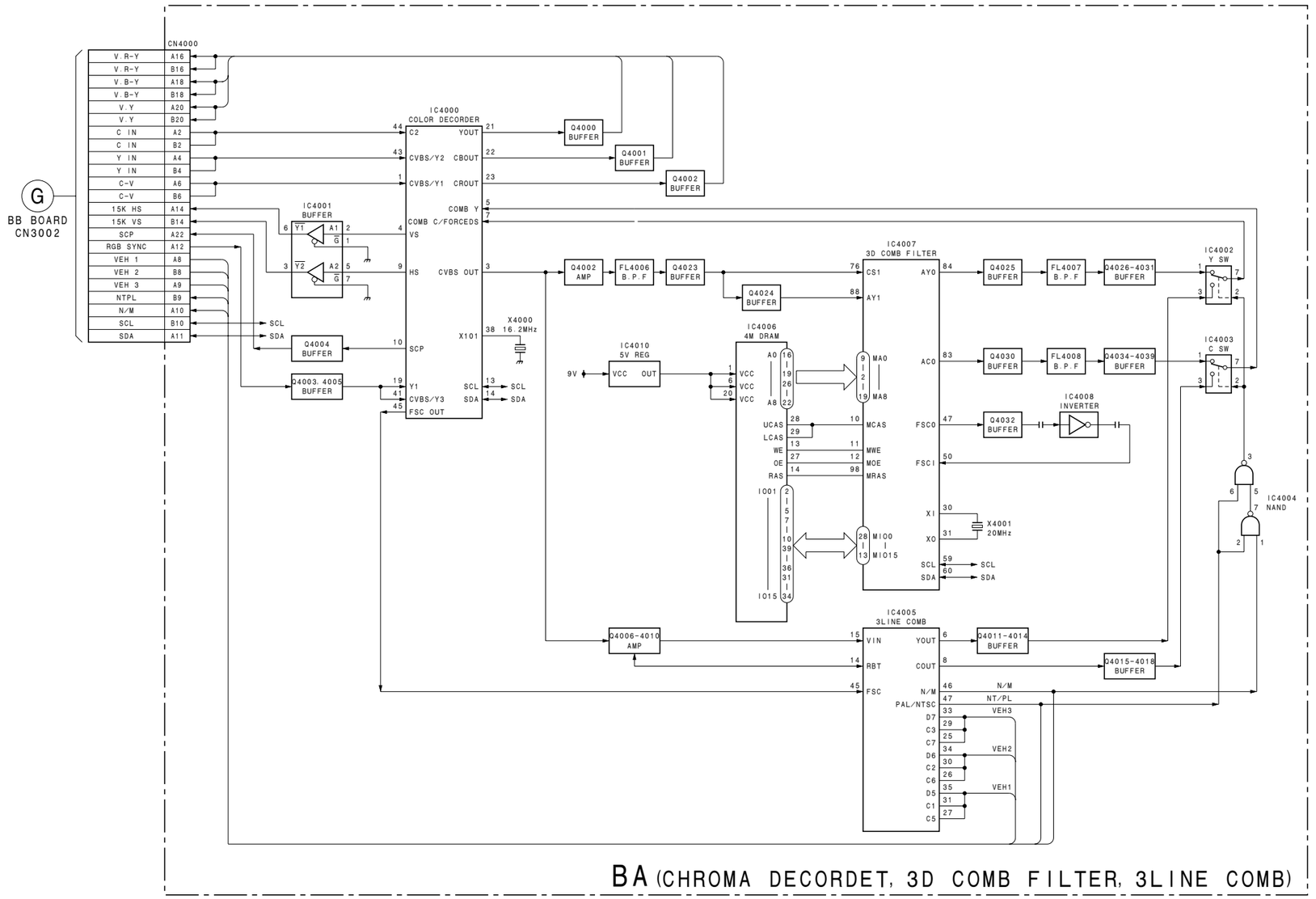
QB BLOCK





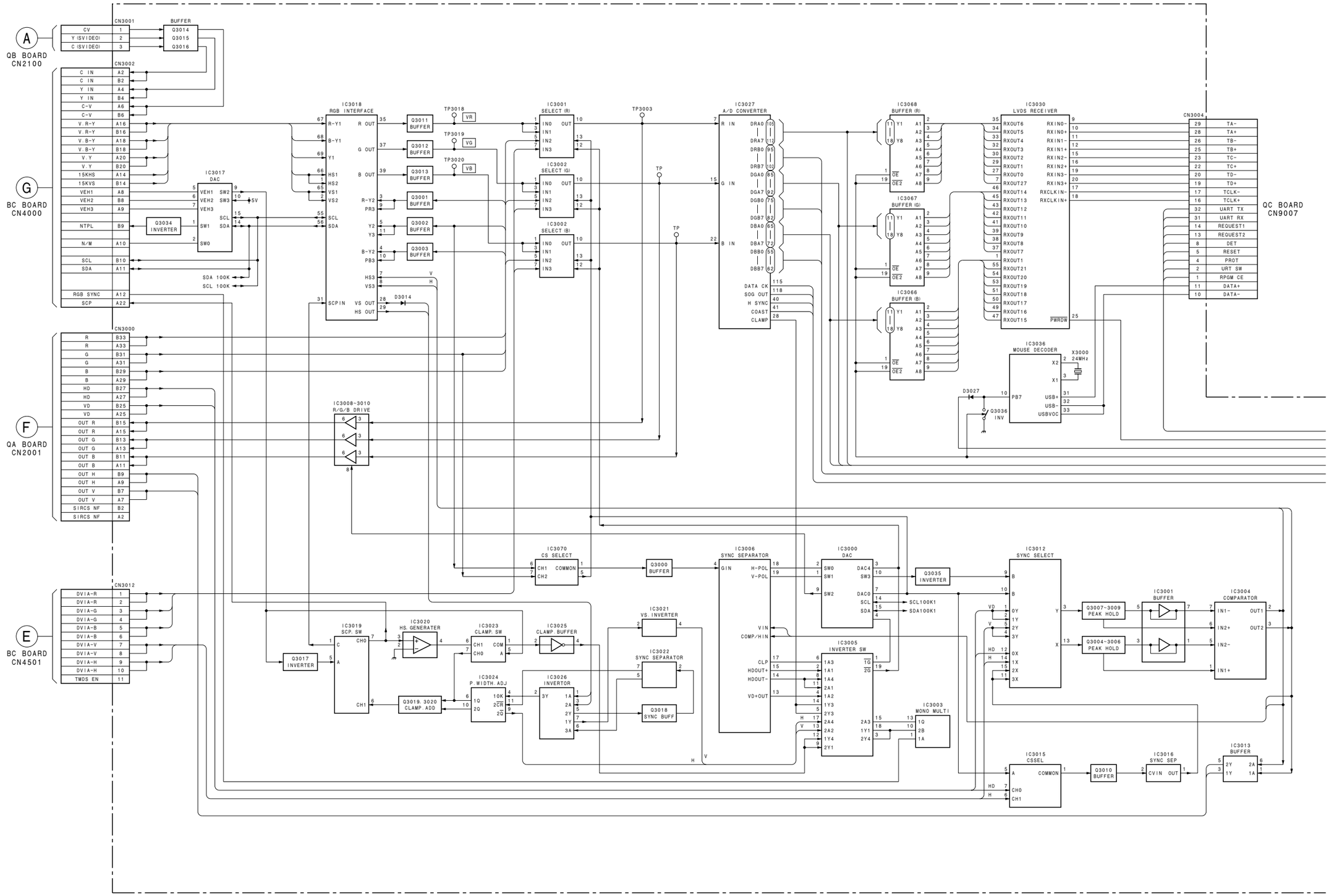
BC BLOCK

H BLOCK



BA (CHROMA DECORDET, 3D COMB FILTER, 3LINE COMB)

BA BLOCK


A
QB BOARD
CN2100
G
BC BOARD
CN4000
F
QA BOARD
CN2001
E
BC BOARD
CN4501
CN3001
CV
Y (SVIDEO)
C (SVIDEO)
BUFFER
Q3014
Q3015
Q3016
CN3002
C IN
Y IN
C-V
V.R-Y
V.B-Y
V.Y
15KHS
15KVS
VEH1
VEH2
VEH3
NTPL
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SCL
SDA
RGB SYNC
SCP
Q3034
INVERTER
IC3017
DAC
SDA 100K
SCL 100K
5V
IC3018
RGB INTERFACE
R-Y1
B-Y1
Y1
HS1
HS2
VS1
VS2
SCL
SDA
SCPIN
R OUT
G OUT
B OUT
R-Y2
PR3
Y2
Y3
B-Y2
PB3
HS3
VS3
VS OUT
HS OUT
Q3011 BUFFER
Q3012 BUFFER
Q3013 BUFFER
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Q3002 BUFFER
Q3003 BUFFER
D3014
TP3018
TP3019
TP3020
VR
VG
VB
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IC3002
SELECT (G)
IC3002
SELECT (B)
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IC3027
A/D CONVERTER
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G IN
B IN
DATA CK
SOG OUT
H SYNC
COAST
CLAMP
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BUFFER (G)
IC3066
BUFFER (B)
IC3030
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RXOUT5
RXOUT6
RXOUT7
RXOUT8
RXOUT9
RXOUT10
RXOUT11
RXOUT12
RXOUT13
RXOUT14
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RXOUT16
RXOUT17
RXOUT18
RXOUT19
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RXOUT21
RXOUT27
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RXCLKIN+
PWRDW
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RXIN1-
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RXIN2-
RXIN2+
RXIN3-
RXIN3+
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TA-
TA+
TB-
TB+
TC-
TC+
TD-
TD+
TCLK-
TCLK+
UART TX
UART RX
REQUEST1
REQUEST2
DET
RESET
PROT
URT SW
RPGM CE
DATA+
DATA-
QC BOARD
CN9007
IC3036
MOUSE DECODER
X3000
24MHz
D3027
Q3036
INV
USB+
USB-
USBVOC
CN3000
R
G
B
HD
VD
OUT R
OUT G
OUT B
OUT H
OUT V
SIRCS NF
IC3008-3010
R/G/B DRIVE
CN3012
DVI A-R
DVI A-G
DVI A-B
DVI A-V
DVI A-H
TMDS EN
IC3070
CS SELECT
Q3000
BUFFER
IC3006
SYNC SEPARATOR
GIN
H-POL
V-POL
VIN
COMP/HIN
CLP
HDOUT+
HDOUT-
VD+OUT
IC3000
DAC
SCL100K1
SDA100K1
Q3035
INVERTER
IC3012
SYNC SELECT
IC3001
BUFFER
IC3004
COMPARATOR
Q3007-3009
PEAK HOLD
Q3004-3006
PEAK HOLD
IC3021
VS. INVERTER
IC3022
SYNC SEPARATOR
Q3018
SYNC BUFF
IC3005
INVERTER SW
IC3003
MONO MULTI
IC3015
CSSEL
Q3010
BUFFER
IC3016
SYNC SEP
IC3013
BUFFER
Q3017
INVERTER
IC3019
SCP. SW
IC3020
HS. GENERATER
IC3023
CLAMP. SW
IC3025
CLAMP. BUFFER
IC3024
P. WIDTH. ADJ
IC3026
INVERTOR
Q3019. 3020
CLAMP. ADD

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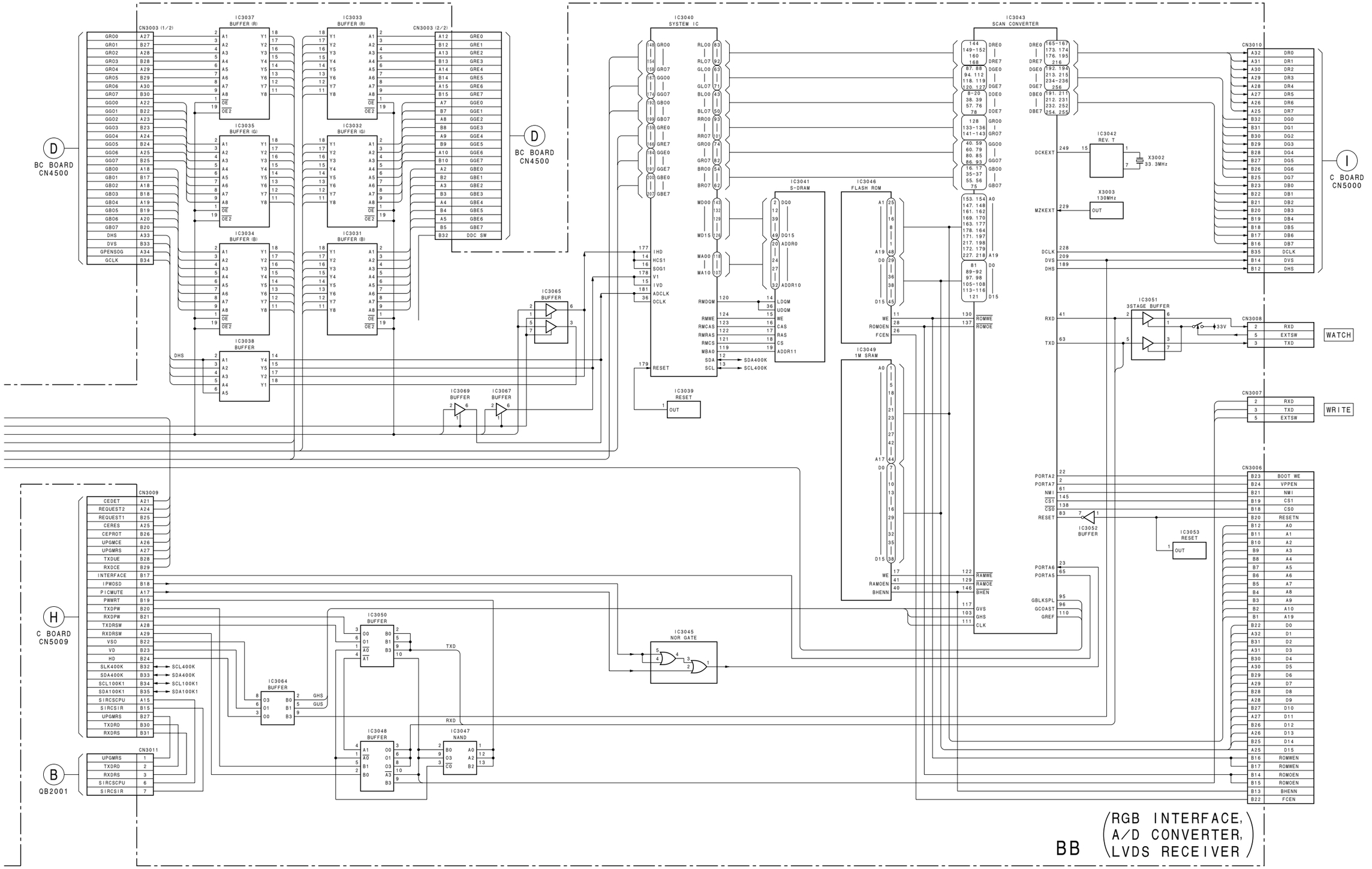

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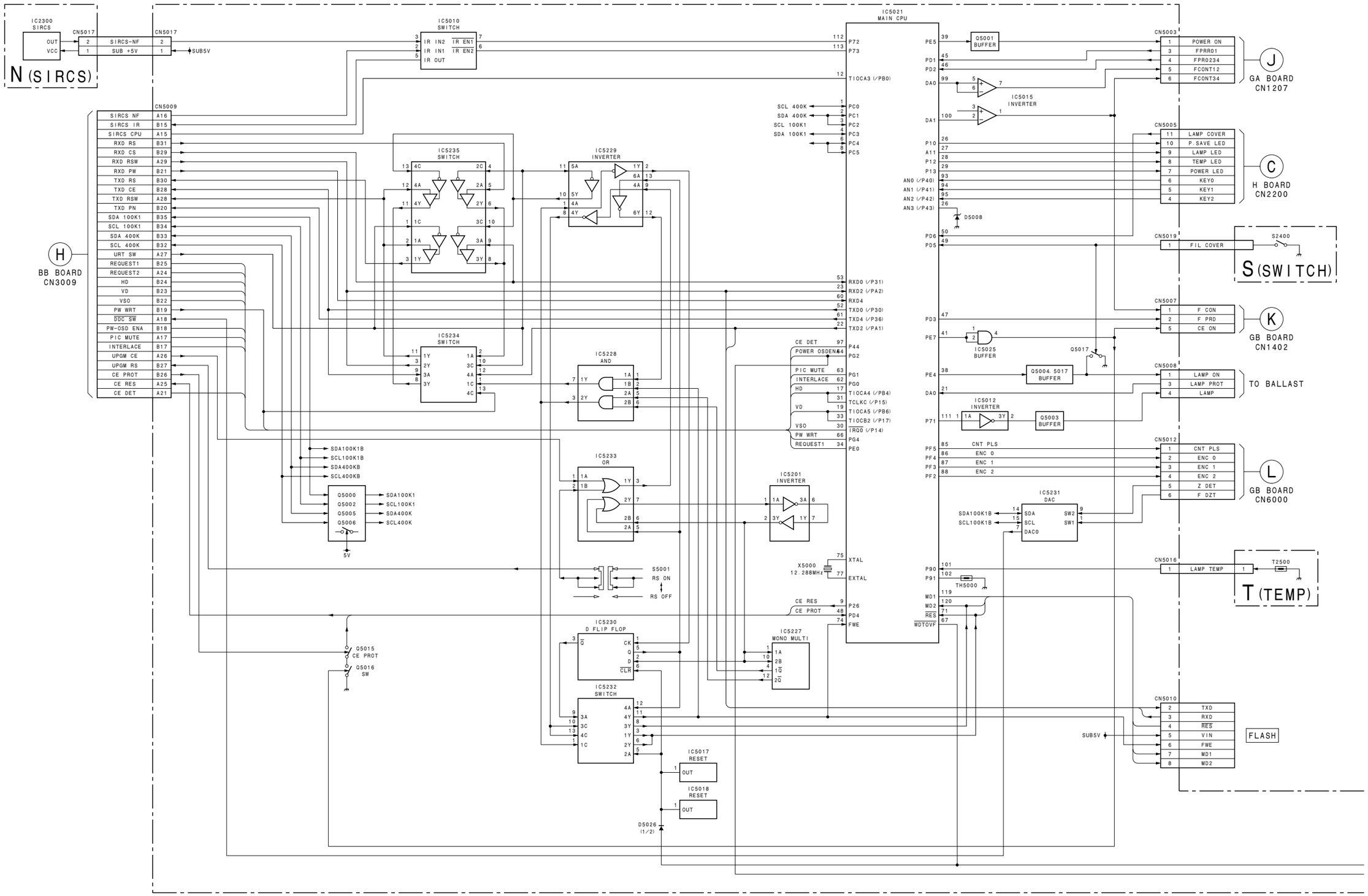
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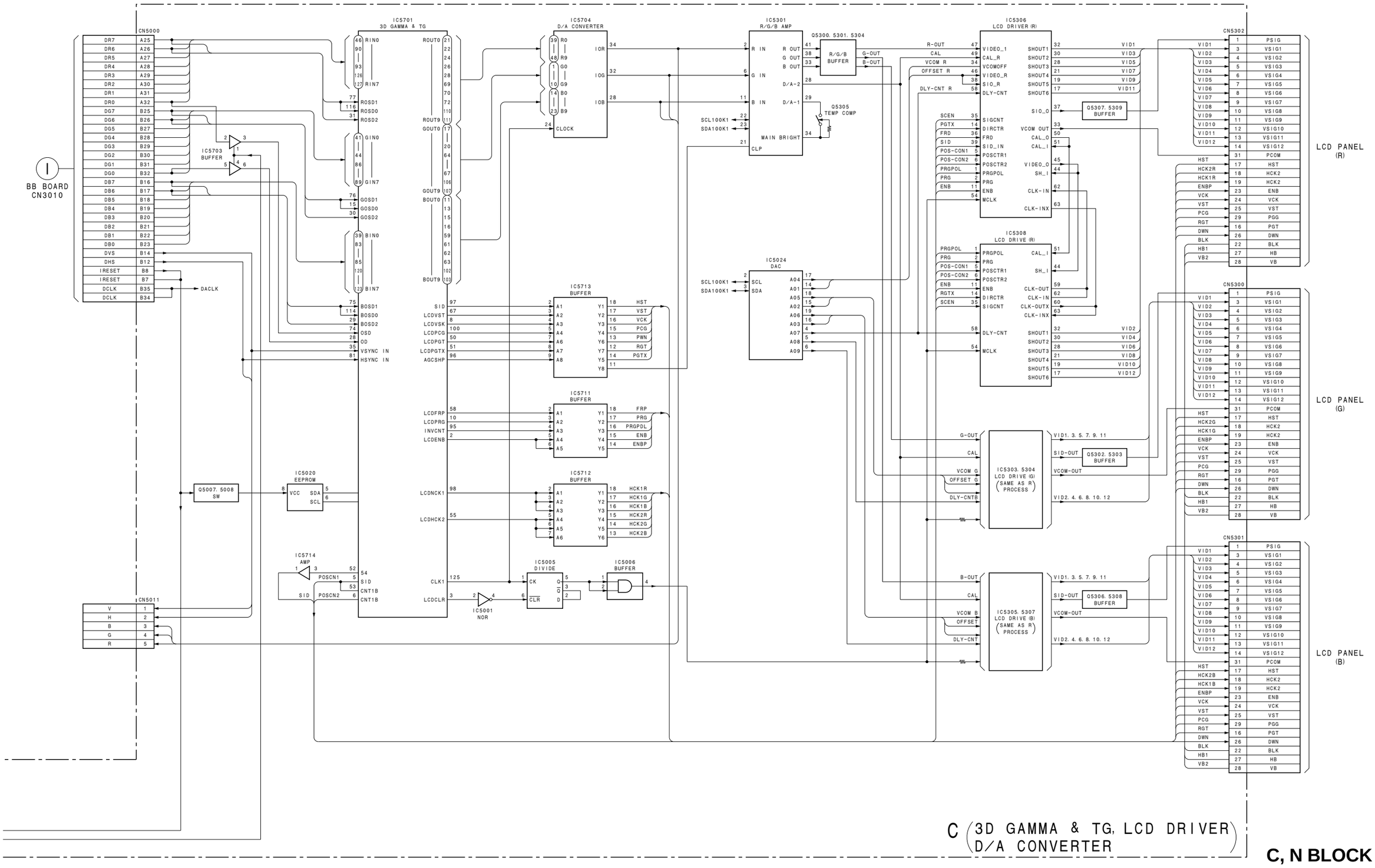
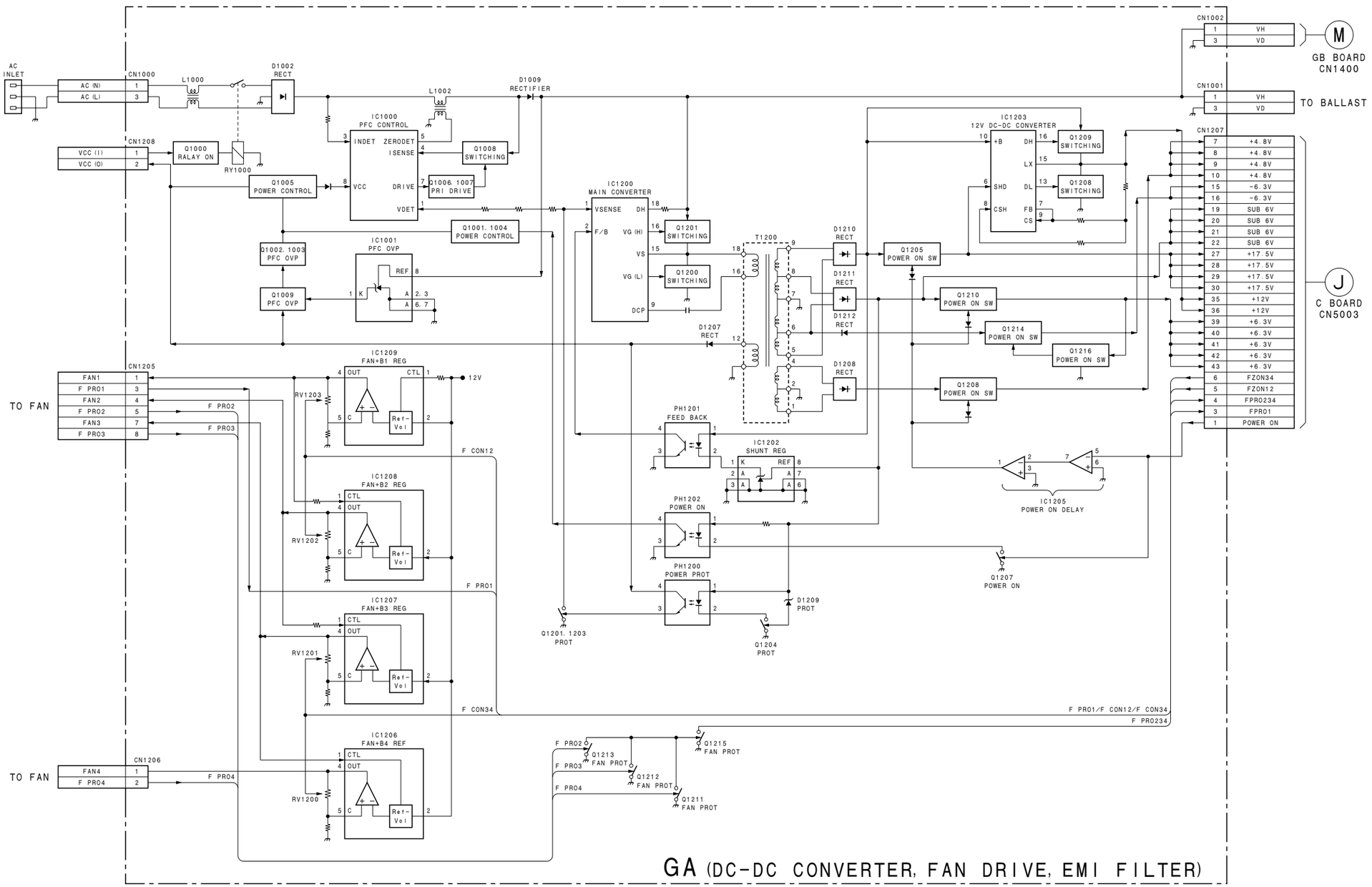
VCC
CN5017
SIRCS-NF
SUB +5V
N (SIRCS)
SUB5V
IC5010
SWITCH
IR IN2
IR IN1
IR OUT
IR EN1
IR EN2
IC5021
MAIN CPU
TIOCA3 (/PB0)
SCL 400K
SDA 400K
SCL 100K1
SDA 100K1
RXD0 (/P31)
RXD2 (/PA2)
RXD4
TXD0 (/P30)
TXD4 (/P36)
TXD2 (/PA1)
CE DET
POWER OSDENA
PIC MUTE
INTERLACE
HD
VD
VSO
PW WRT
REQUEST1
TIOCA4 (/PB4)
TCLKC (/P15)
TIOCA5 (/PB6)
TIOCB2 (/P17)
IRQ0 (/P14)
XTAL
EXTAL
CE RES
CE PROT
FWE
CN5009
SIRCS NF
SIRCS IR
SIRCS CPU
RXD RS
RXD CS
RXD RSW
RXD PW
TXD RS
TXD CE
TXD RSW
TXD PN
SDA 100K1
SCL 100K1
SDA 400K
SCL 400K
URT SW
REQUEST1
REQUEST2
HD
VD
VSO
PW WRT
DDC SW
PW-OSD ENA
PIC MUTE
INTERLACE
UPGM CE
UPGM RS
CE PROT
CE RES
CE DET
H
BB BOARD
CN3009
IC5235
SWITCH
IC5229
INVERTER
IC5234
SWITCH
IC5228
AND
IC5233
OR
IC5201
INVERTER
IC5230
D FLIP FLOP
IC5232
SWITCH
IC5227
MONO MULTI
IC5017
RESET
IC5018
RESET
SDA100K1B
SCL100K1B
SDA400KB
SCL400KB
Q5000
Q5002
Q5005
Q5006
5V
SDA100K1
SCL100K1
SDA400K
SCL400K
S5001
RS ON
RS OFF
X5000
12.288MHz
Q5015
CE PROT
Q5016
SW
D5026
(1/2)
Q5001
BUFFER
IC5015
INVERTER
D5008
IC5025
BUFFER
Q5017
Q5004. 5017
BUFFER
IC5012
INVERTER
Q5003
BUFFER
CNT PLS
ENC 0
ENC 1
ENC 2
IC5231
DAC
SDA
SCL
DAC0
SW2
SW1
TH5000
S2400
S
(SWITCH)
CN5003
POWER ON
FPRR01
FPR0234
FCONT12
FCONT34
J
GA BOARD
CN1207
CN5005
LAMP COVER
P.SAVE LED
LAMP LED
TEMP LED
POWER LED
KEY0
KEY1
KEY2
C
H BOARD
CN2200
CN5019
FIL COVER
CN5007
F CON
F PRD
CE ON
K
GB BOARD
CN1402
CN5008
LAMP ON
LAMP PROT
LAMP
TO BALLAST
CN5012
CNT PLS
ENC 0
ENC 1
ENC 2
Z DET
F DZT
L
GB BOARD
CN6000
CN5016
LAMP TEMP
T2500
T (TEMP)
CN5010
TXD
RXD
RES
VIN
FWE
MD1
MD2
FLASH
SUB5V

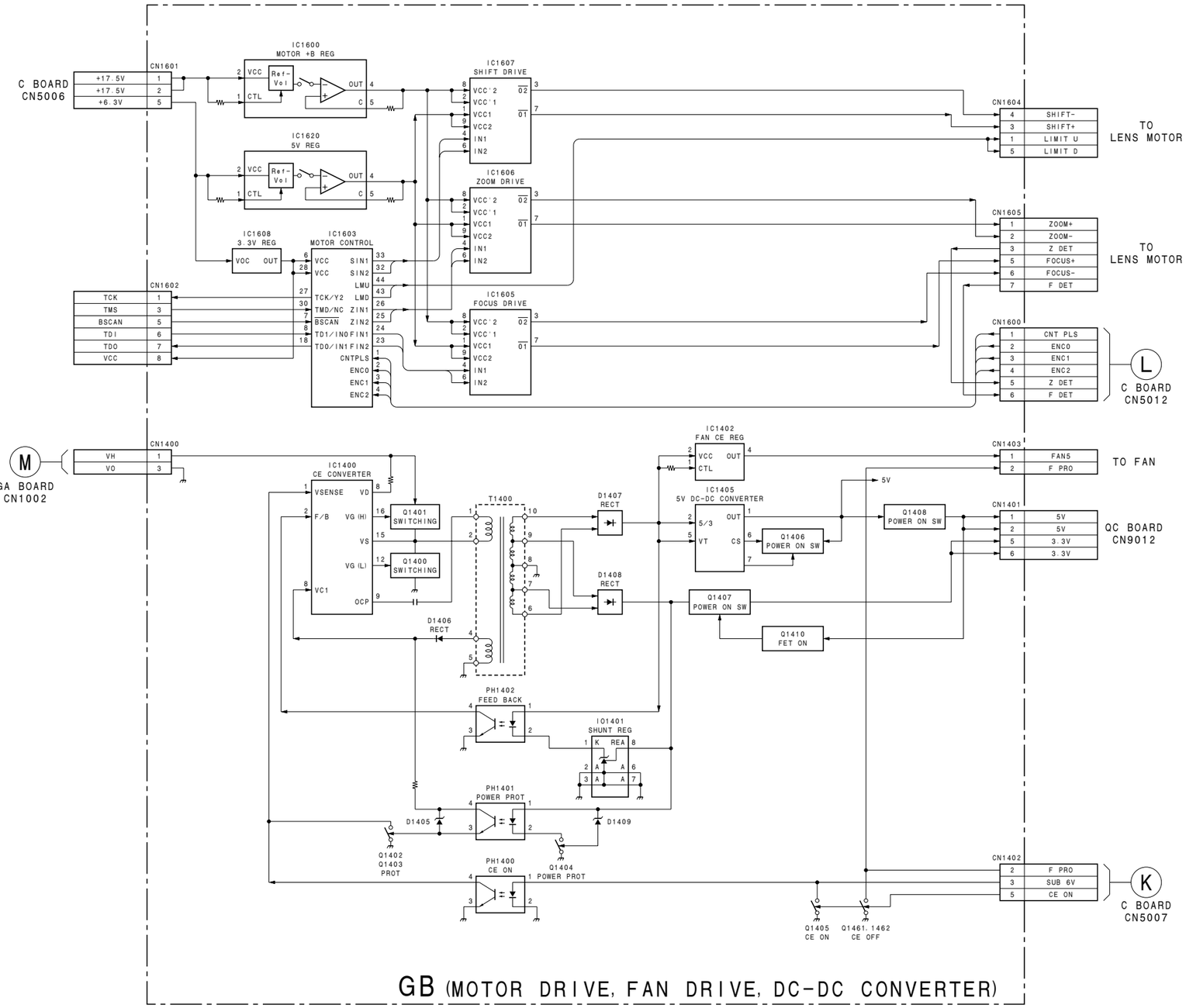


C (3D GAMMA & TG, LCD DRIVER D/A CONVERTER)

C, N BLOCK


AC INLET
CN1000
AC (N) 1
AC (L) 3
L1000
D1002 RECT
L1002
D1009 RECTIFIER
CN1002
1 VH
3 VD
M
GB BOARD CN1400
CN1001
1 VH
3 VD
TO BALLAST
CN1208
VCC (I) 1
VCC (O) 2
Q1000 RALAY ON
RY1000
Q1005 POWER CONTROL
IC1000 PFC CONTROL
INDET ZERODET
ISENSE
VCC
DRIVE
VDET
Q1008 SWITCHING
Q1006. 1007 PRI DRIVE
Q1001. 1004 POWER CONTROL
Q1002. 1003 PFC OVP
Q1009 PFC OVP
IC1001 PFC OVP
REF
IC1200 MAIN CONVERTER
VSENSE
F/B
VG (H)
VS
VG (L)
DCP
DH
Q1201 SWITCHING
Q1200 SWITCHING
T1200
D1210 RECT
D1211 RECT
D1212 RECT
D1207 RECT
D1208 RECT
IC1203 12V DC-DC CONVERTER
+B
SHD
CSH
DH
LX
DL
FB
CS
Q1209 SWITCHING
Q1208 SWITCHING
Q1205 POWER ON SW
Q1210 POWER ON SW
Q1214 POWER ON SW
Q1216 POWER ON SW
Q1208 POWER ON SW
CN1207
7 +4.8V
8 +4.8V
9 +4.8V
10 +4.8V
15 -6.3V
16 -6.3V
19 SUB 6V
20 SUB 6V
21 SUB 6V
22 SUB 6V
27 +17.5V
28 +17.5V
29 +17.5V
30 +17.5V
35 +12V
36 +12V
39 +6.3V
40 +6.3V
41 +6.3V
42 +6.3V
43 +6.3V
6 FZON34
5 FZON12
4 FPRO234
3 FPRO1
1 POWER ON
J
C BOARD CN5003
CN1205
FAN1 1
F PRO1 3
FAN2 4
F PRO2 5
FAN3 7
F PRO3 8
TO FAN
IC1209 FAN+B1 REG
RV1203
12V
F PRO2
F PRO3
F CON12
IC1208 FAN+B2 REG
RV1202
F PRO1
IC1207 FAN+B3 REG
RV1201
F CON34
IC1206 FAN+B4 REF
RV1200
CN1206
FAN4 1
F PRO4 2
TO FAN
PH1201 FEED BACK
IC1202 SHUNT REG
PH1202 POWER ON
PH1200 POWER PROT
D1209 PROT
Q1201. 1203 PROT
Q1204 PROT
IC1205 POWER ON DELAY
Q1207 POWER ON
F PRO1/F CON12/F CON34
F PRO234
F PRO2
Q1213 FAN PROT
F PRO3
Q1212 FAN PROT
F PRO4
Q1211 FAN PROT
Q1215 FAN PROT
GA (DC-DC CONVERTER, FAN DRIVE, EMI FILTER)

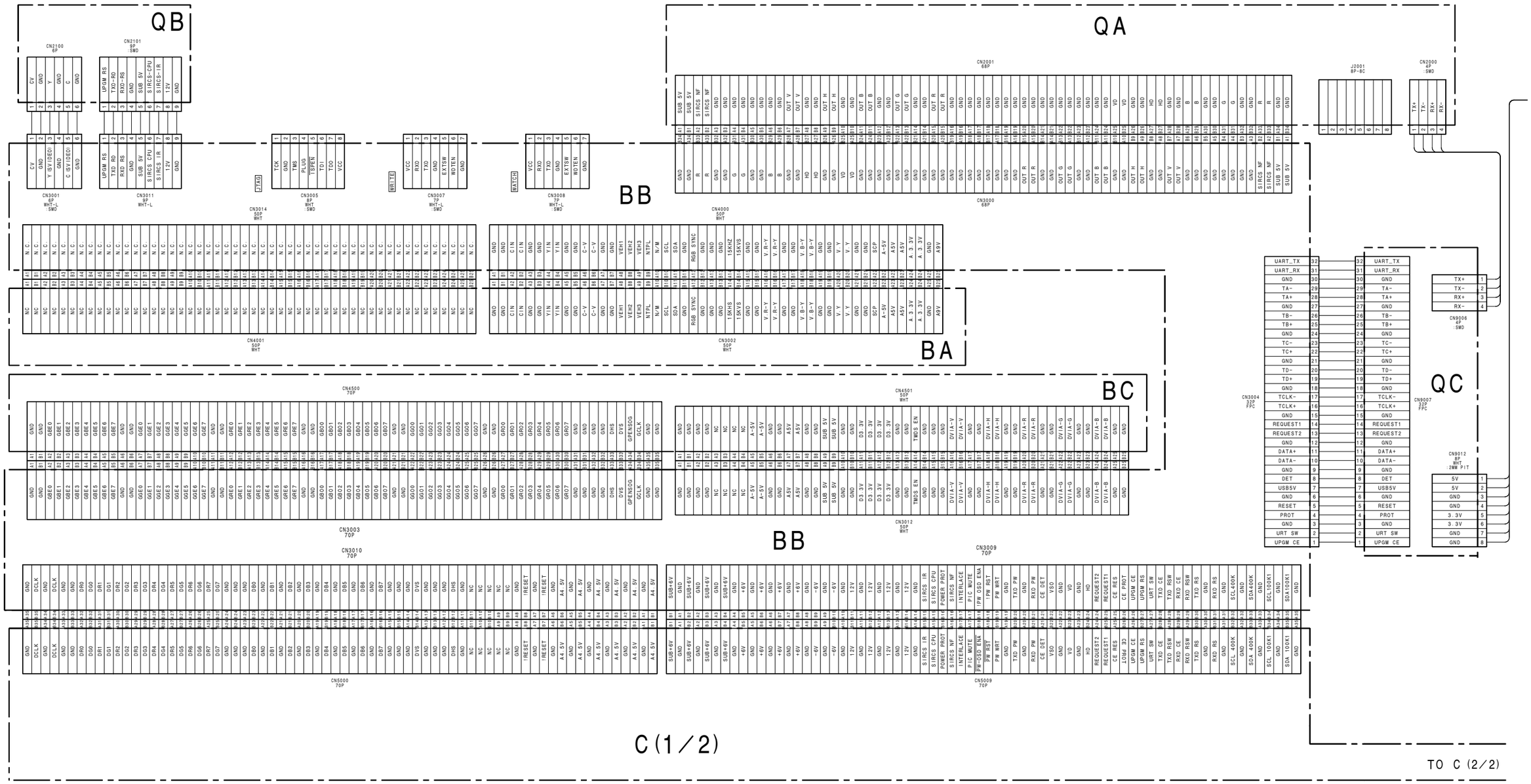
GA BLOCK

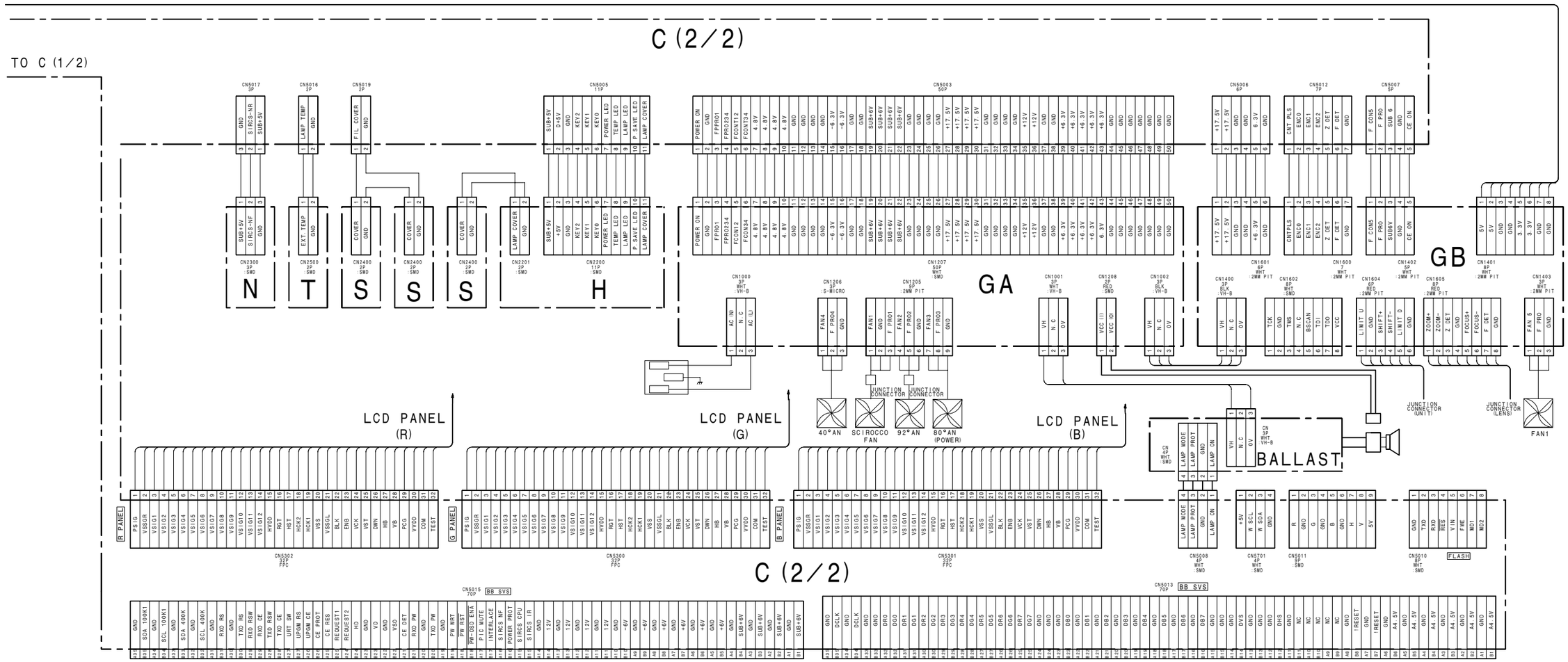

C BOARD CN5006
CN1601
+17.5V 1
+17.5V 2
+6.3V 5
IC1600 MOTOR +B REG
IC1620 5V REG
IC1608 3.3V REG
IC1603 MOTOR CONTROL
IC1607 SHIFT DRIVE
IC1606 ZOOM DRIVE
IC1605 FOCUS DRIVE
CN1602
TCK 1
TMS 3
BSCAN 5
TDI 6
TDO 7
VCC 8
CN1604
SHIFT- 4
SHIFT+ 3
LIMIT U 1
LIMIT D 5
TO LENS MOTOR
CN1605
ZOOM+ 1
ZOOM- 2
Z DET 3
FOCUS+ 5
FOCUS- 6
F DET 7
TO LENS MOTOR
CN1600
CNT PLS 1
ENC0 2
ENC1 3
ENC2 4
Z DET 5
F DET 6
L
C BOARD CN5012
M
GA BOARD CN1002
CN1400
VH 1
VO 3
IC1400 CE CONVERTER
IC1402 FAN CE REG
IC1405 5V DC-DC CONVERTER
CN1403
FAN5 1
F PRO 2
TO FAN
5V
CN1401
5V 1
5V 2
3.3V 5
3.3V 6
QC BOARD CN9012
T1400
D1407 RECT
D1408 RECT
D1406 RECT
Q1401 SWITCHING
Q1400 SWITCHING
Q1408 POWER ON SW
Q1406 POWER ON SW
Q1407 POWER ON SW
Q1410 FET ON
PH1402 FEED BACK
IO1401 SHUNT REG
PH1401 POWER PROT
D1405
D1409
Q1402 Q1403 PROT
Q1404 POWER PROT
PH1400 CE ON
CN1402
F PRO 2
SUB 6V 3
CE ON 5
K
C BOARD CN5007
Q1405 CE ON
Q1461, 1462 CE OFF
GB (MOTOR DRIVE, FAN DRIVE, DC-DC CONVERTER)

GB BLOCK

Section 8
Diagrams

8-1. FRAME SCHEMATIC DIAGRAM




C (2/2)
TO C (1/2)
GA
GB
N
T
S
S
S
H
LCD PANEL (R)
LCD PANEL (G)
LCD PANEL (B)
BALLAST
40°AN
SCIROCCO FAN
92°AN
80°AN (POWER)
FAN1
JUNCTION CONNECTOR
JUNCTION CONNECTOR (UNIT)
JUNCTION CONNECTOR (LENS)
R PANEL
G PANEL
B PANEL
FLASH
BB SVS
C (2/2)

8-2. Schematic Diagrams and Printed Wiring Boards

Note:

- The parts marked " # " on schematic diagrams are not mounted.
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics.
- All electrolytics are in 50 V unless otherwise specified.
- : fusible resistor
- : nonflammable resistor
- : panel designation and adjustment for repair
- Caution when replacing chip parts
  New parts must be attached after removal of the chip.
  Be careful not to heat the minus side of a tantalum capacitor, because it is easily damaged by the heat.

Reference information

RESISTOR	RN	: METAL FILM
	RC	: SOLID
	FPRD	: NONFLAMMABLE CARBON
	FUSE	: NONFLAMMABLE FUSIBLE
	RS	: NONFLAMMABLE METAL OXIDE
	RB	: NONFLAMMABLE CEMENT
	RW	: NONFLAMMABLE WIREWOUND
		: ADJUSTMENT RESISTOR
COIL	LF-8L ※	: MICRO INDUCTOR
CAPACITOR	TA	: TANTALUM
	PS	: STYROL
	PP	: POLYPROPYLENE
	PT	: MYLAR
	MPS	: METALIZED POLYESTER
	MPP	: METALIZED POLYPROPYLENE
	ALB	: BIPOLAR
	ALT	: HIGH TEMPERATURE
	ALR	: HIGH RIPPLE

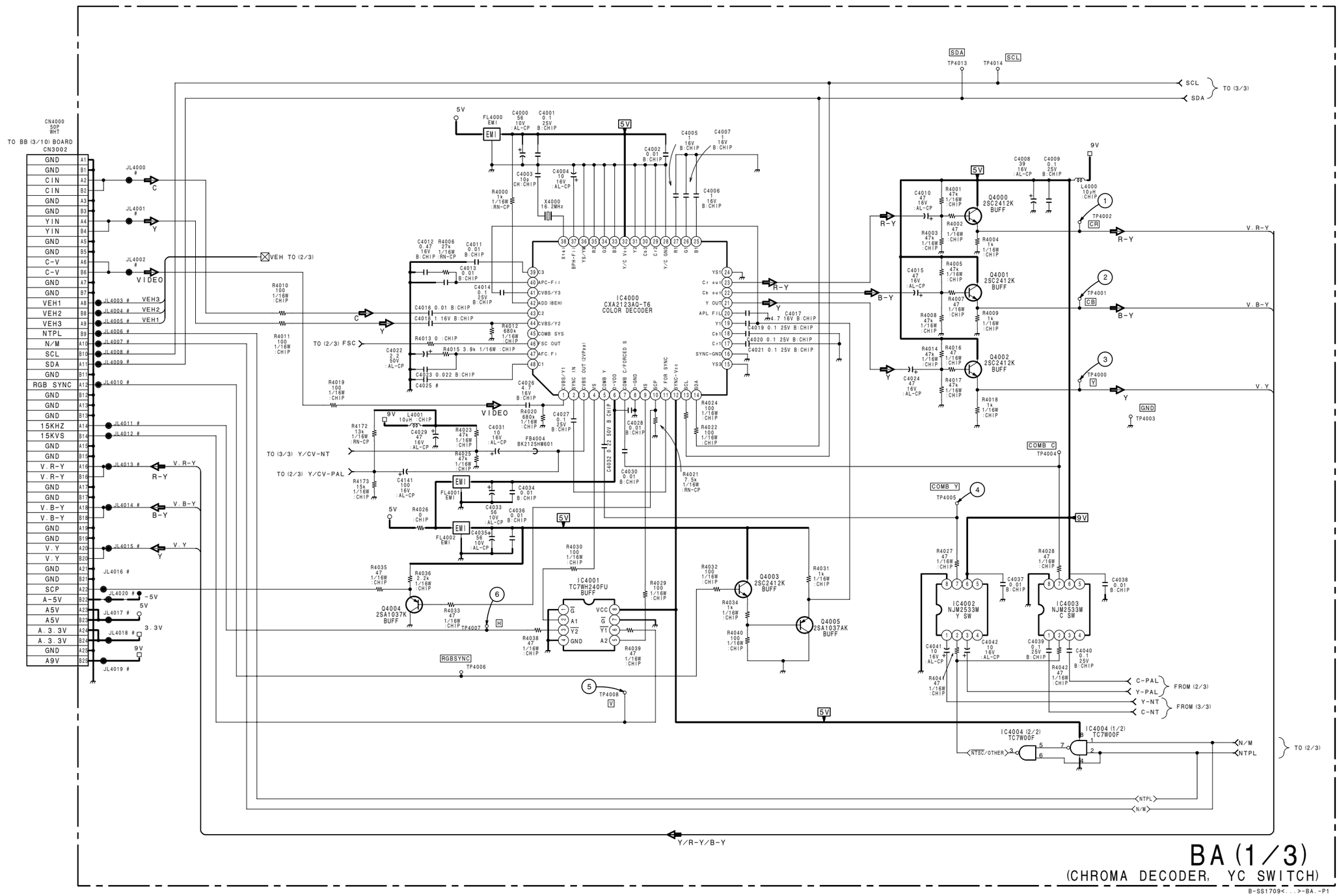
[Measuring conditions, voltage and waveform]

- A voltage value is the reference value between the measurement point and the earth, when the NTSC color bar signal is received from the color bar generator (digital multi-meter used: 10 M ohms/V DC).
- A voltage value is the reference value between the measurement point and the earth, when the NTSC color bar signal and RGB color bar signal are received from the color bar generator (digital multi-meter used: 10 M ohms/V DC).
- Unit of voltage is V (volt).
- : B+line
  : B– line
- Voltage variations may occur due to normal production tolerances.
- No mark : NTSC (3.58 MHz) color bar signal.
- [ ] : RGB color bar signal is received.
- Circled numbers indicate the reference waveform.
- : Signal path.

The components identified marked ⚠ are critical for safety.
Replace only with the part number specified.

8-3

- **Refer to page 8-7 for Printed Wiring Board**
- **Refer to page 8-7 for Waveforms**
- **Refer to page 8-7 for IC Block Diagrams**



BA (1/3)

(CHROMA DECODER, YC SWITCH)

B-SS1709<...>-BA.-P1

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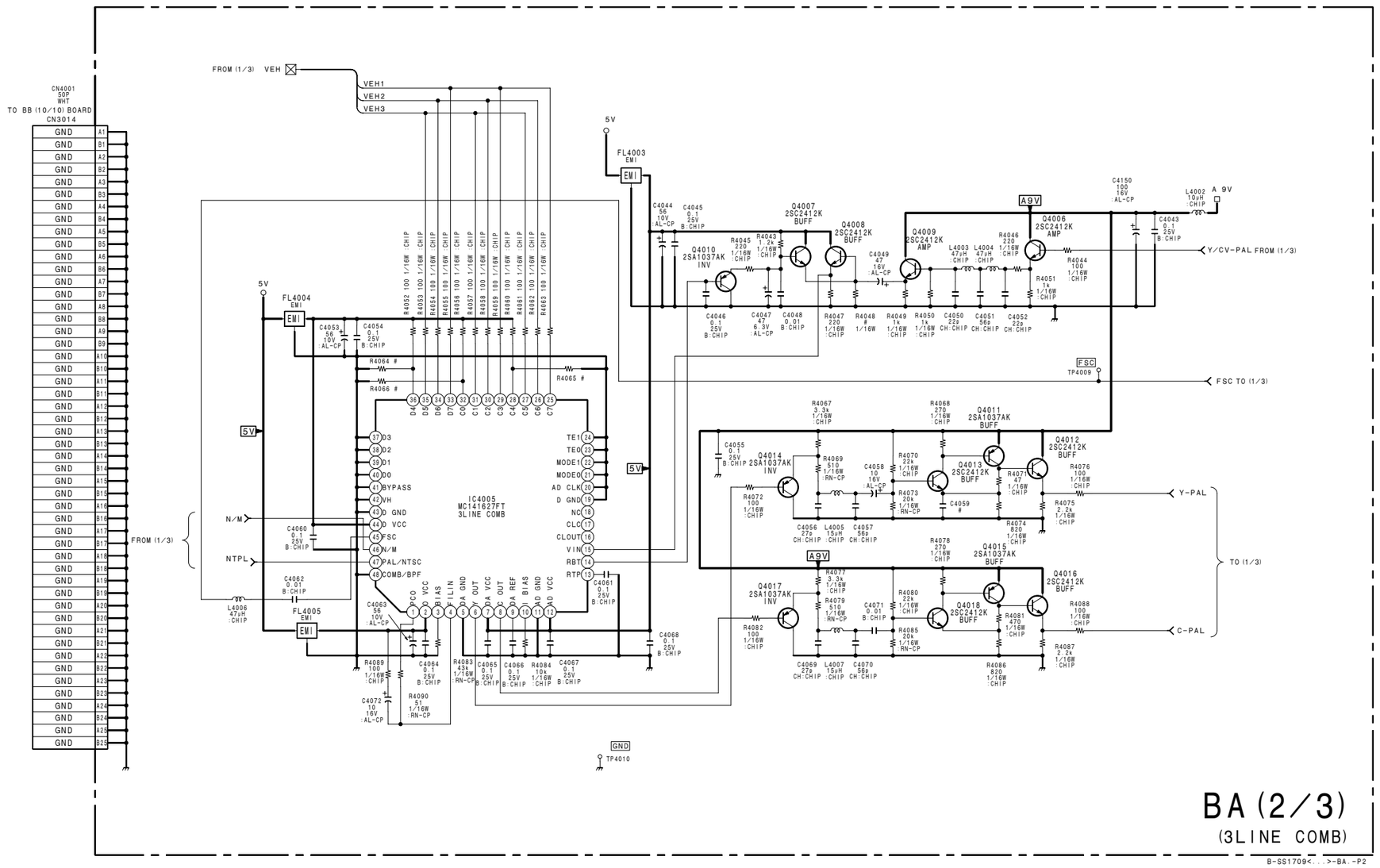
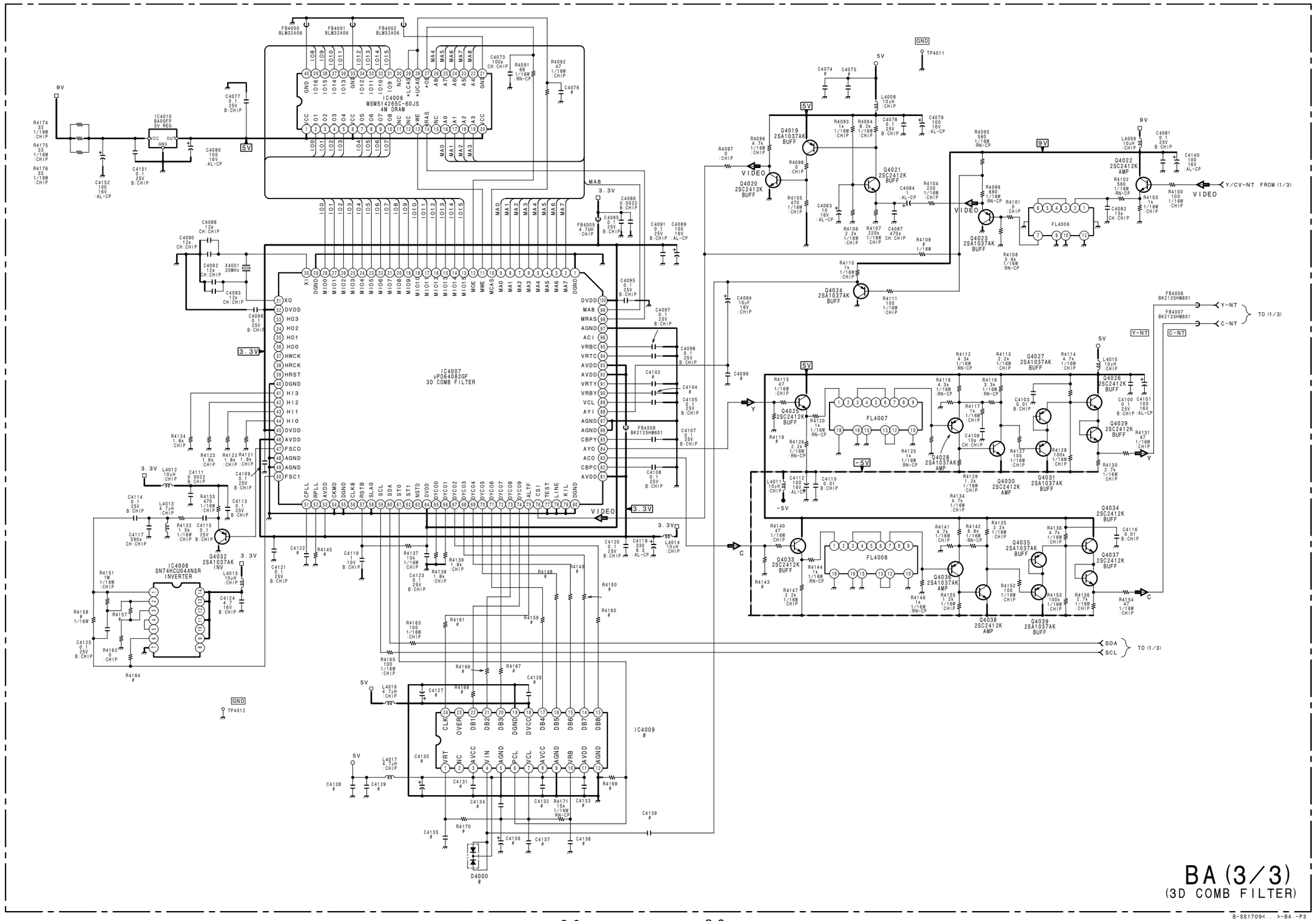
- **Refer to page 8-7 for Printed Wiring Board**
- **Refer to page 8-7 for Waveforms**
- **Refer to page 8-7 for IC Block Diagrams**

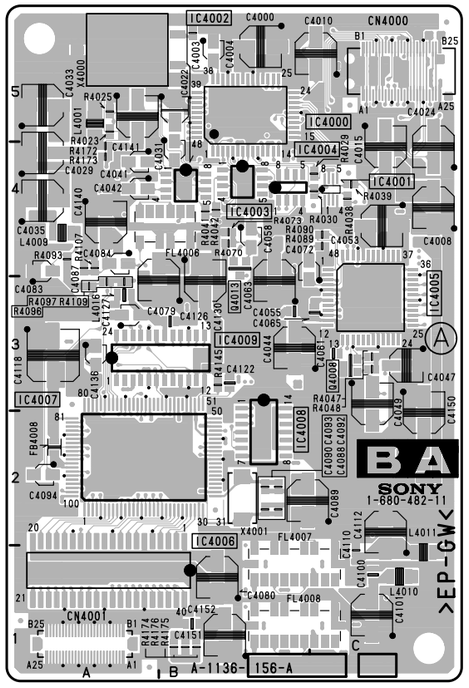


- **Refer to page 8-7 for Printed Wiring Board**
- **Refer to page 8-7 for Waveforms**
- **Refer to page 8-7 for IC Block Diagrams**



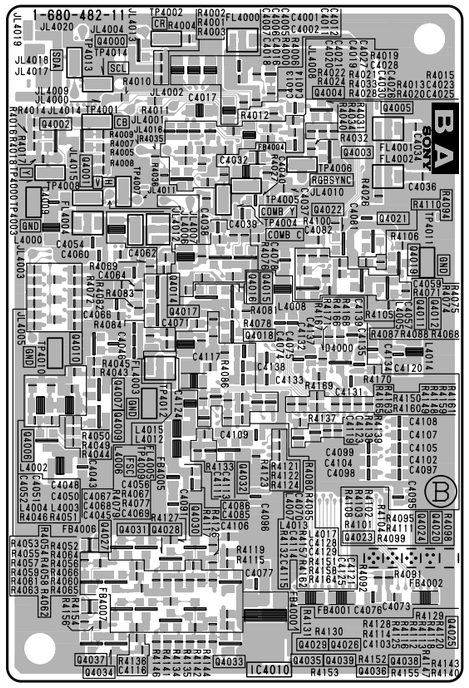
BA (3/3)
(3D COMB FILTER)

B-SS1709<...>-BA.-P3



BA –A SIDE–

SUFFIX : -11



BA –B SIDE–

SUFFIX : -11

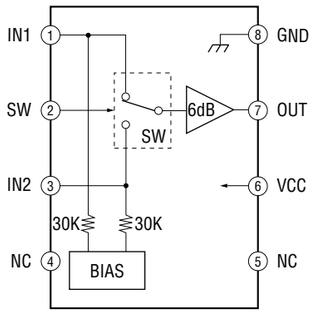
```
--
BA
--
1-680-482-11

IC4000   B-5
IC4001   C-4
IC4002   B-4
IC4003   B-4
IC4004   B-4
IC4005   C-3
IC4006   A-1
IC4007   A-2
IC4008   B-2
IC4009   B-3

Q4008    C-3
Q4013    B-4
```

BA Board Waveforms

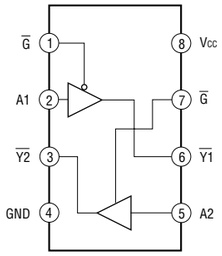
① 0.4Vp-p(H) TP4002 CR	② 0.5Vp-p(H) TP4001 CB	③ 1.0Vp-p(H) TP4000 Y	④ 1.4Vp-p(H) TP4005 COMBY	⑤ 7.0Vp-p(V) TP4008 V
⑥ 6.3Vp-p(H) TP4007 H				

BA Board IC Block Diagrams

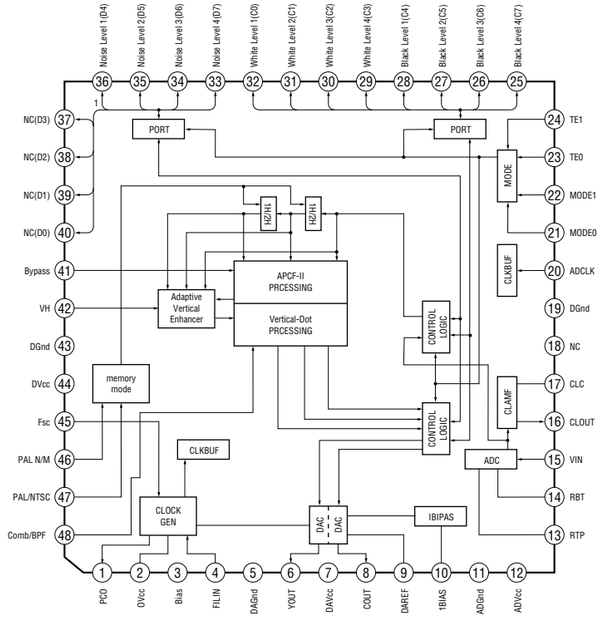
NJM2533M(IC4002, 4003)



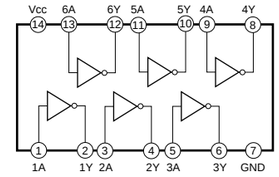
TC7WH240FU(IC4001)



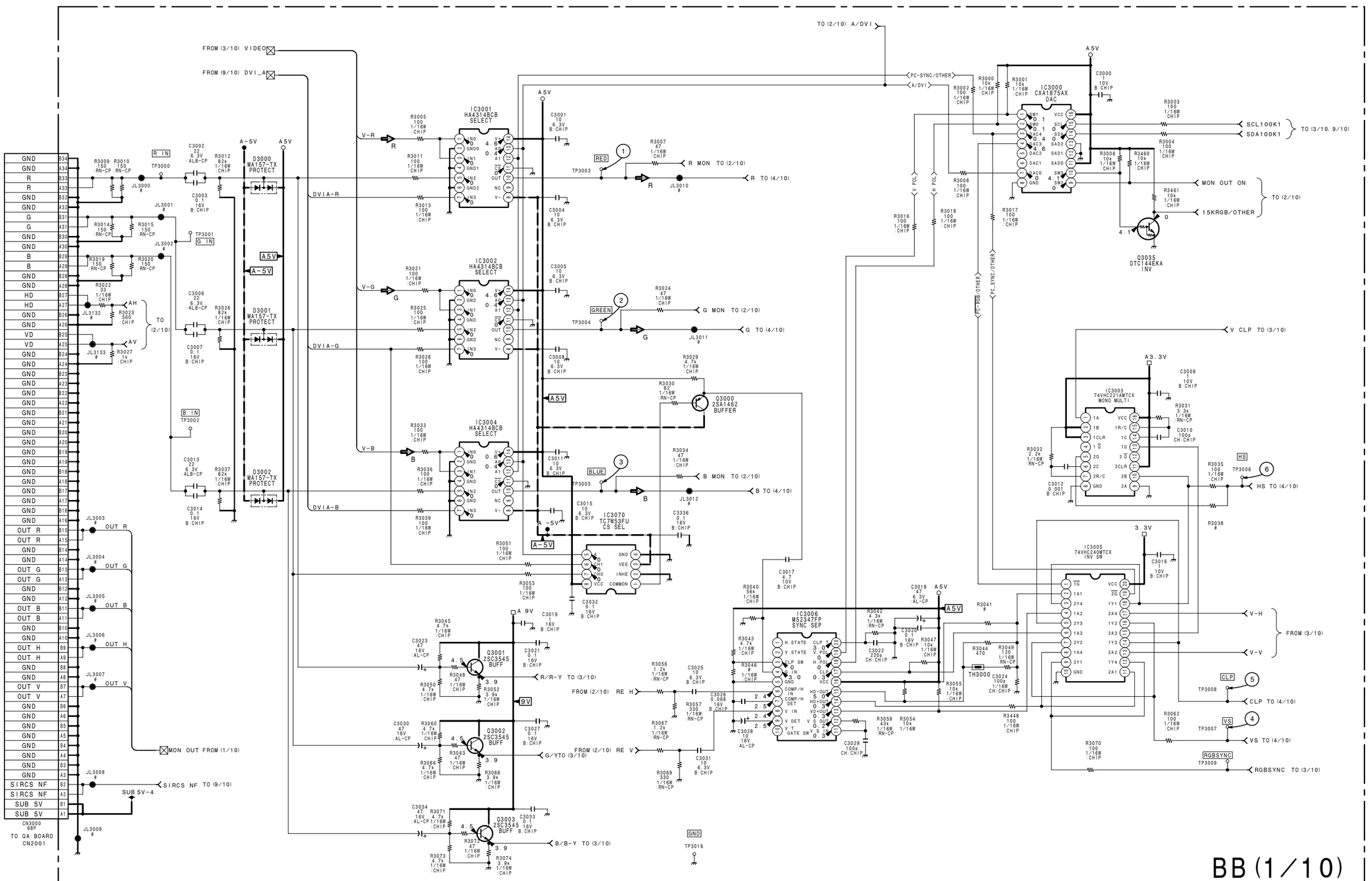
MC141627FT(IC4005)



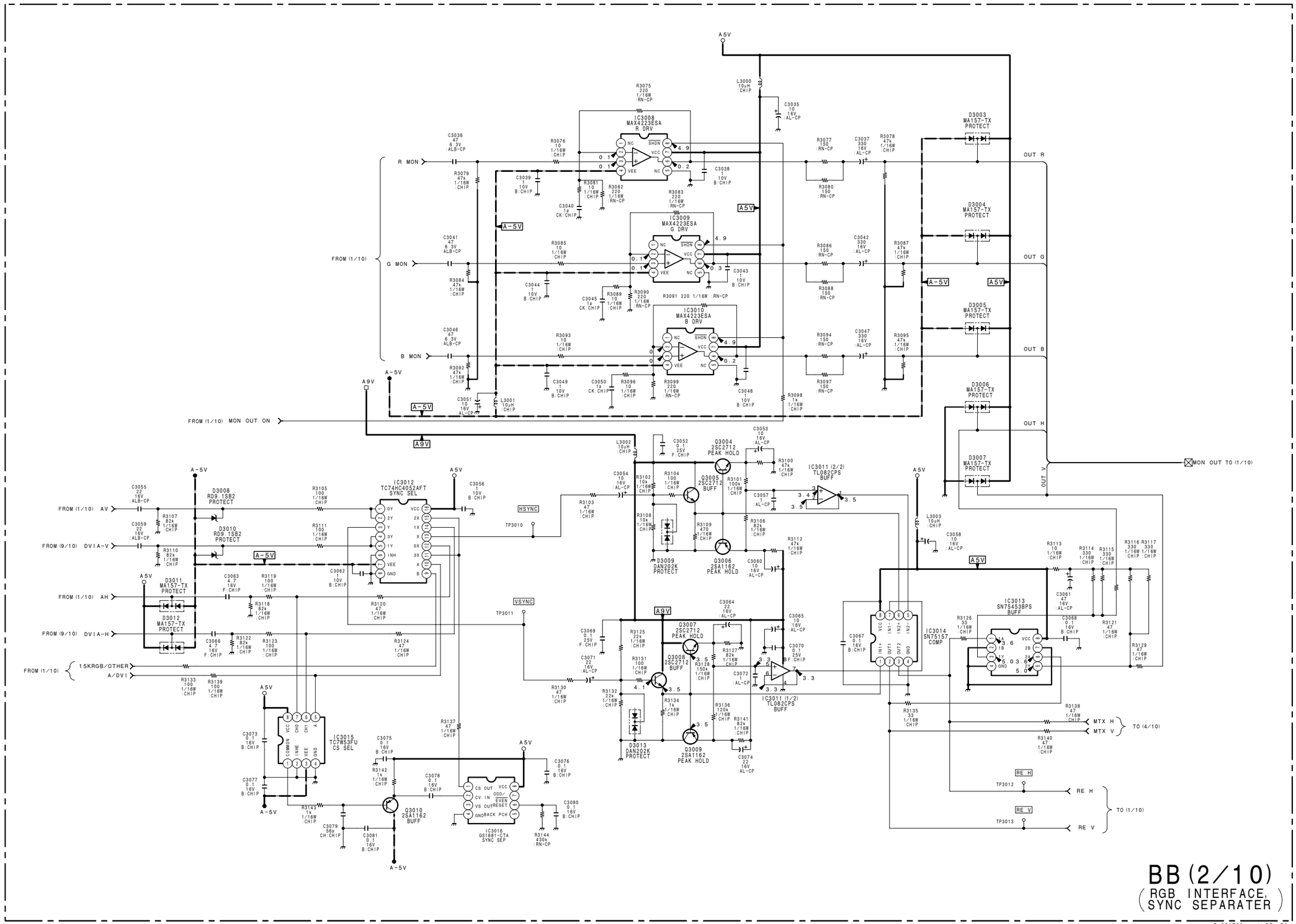
SN74HCU04ANSR(IC4008)



- **Refer to page 8-19 for Printed Wiring Board**
- **Refer to page 8-18 for Waveforms**
- **Refer to page 8-18 for IC Block Diagrams**



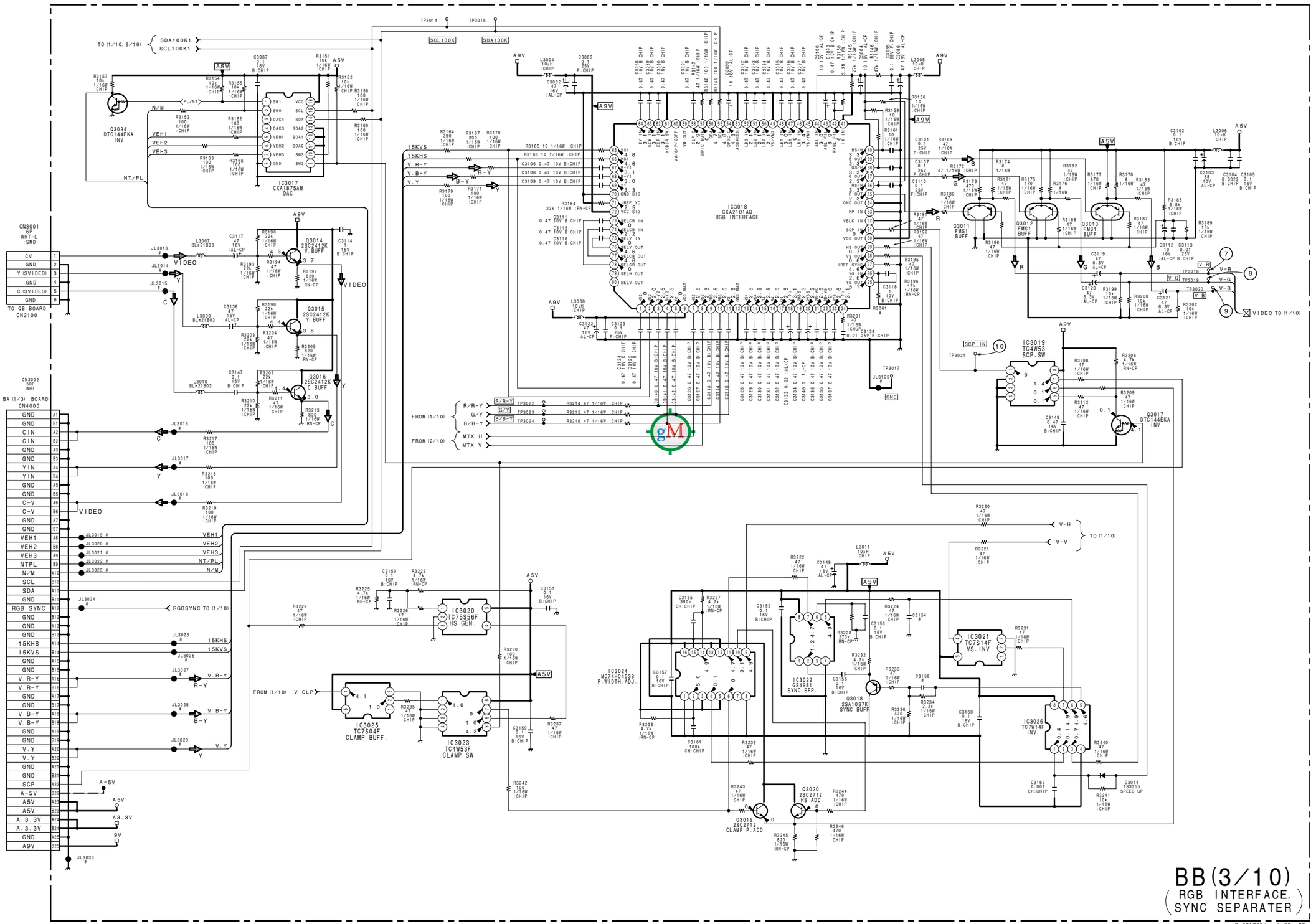
- **Refer to page 8-19 for Printed Wiring Board**
- **Refer to page 8-18 for Waveforms**
- **Refer to page 8-18 for IC Block Diagrams**



BB (2/10)
(RGB INTERFACE, SYNC SEPARATER)

B-SS1709<...>-BB.-P2

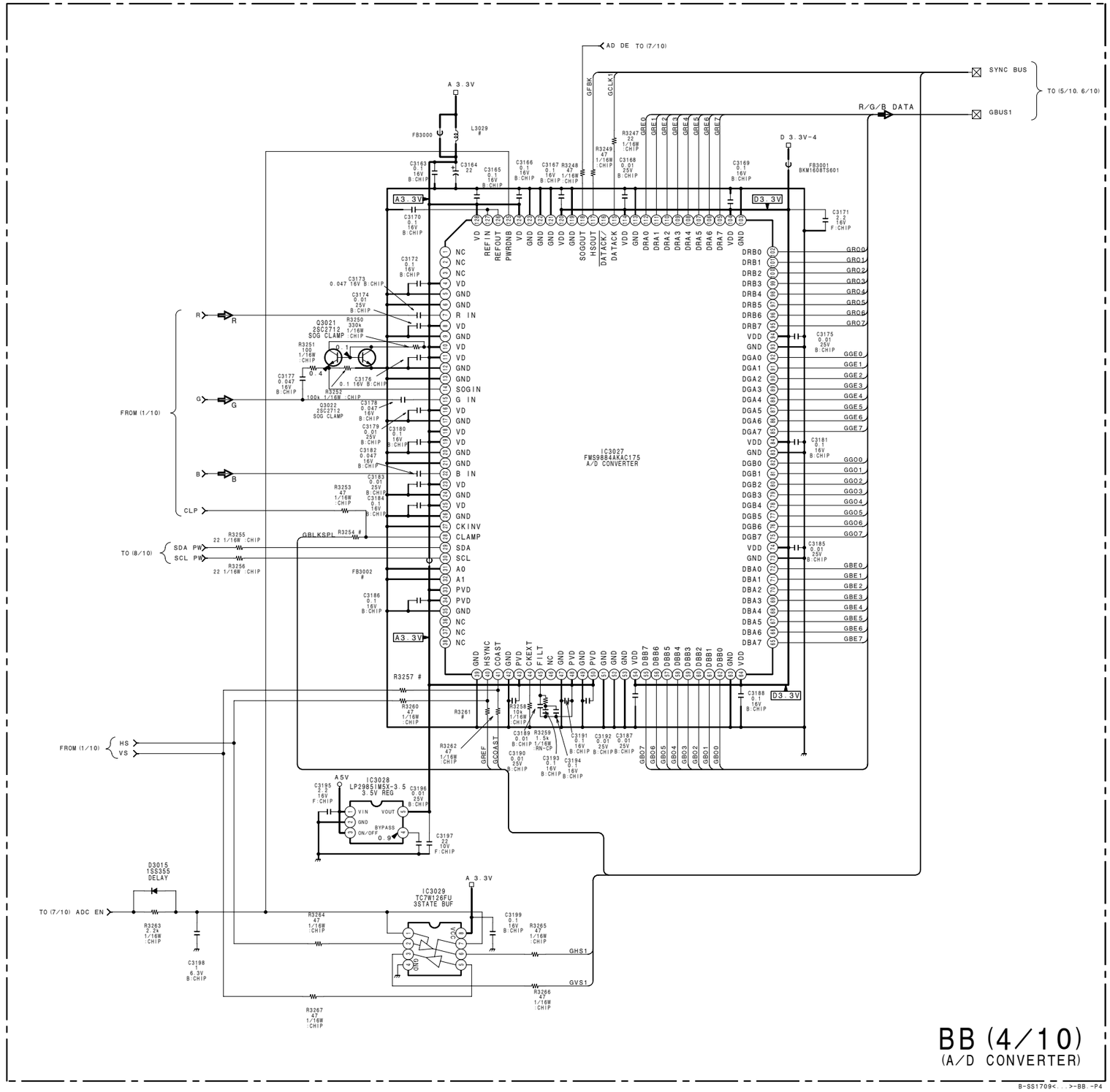
- **Refer to page 8-19 for Printed Wiring Board**
- **Refer to page 8-18 for Waveforms**
- **Refer to page 8-18 for IC Block Diagrams**



BB(3/10)
(RGB INTERFACE, SYNC SEPARATER)

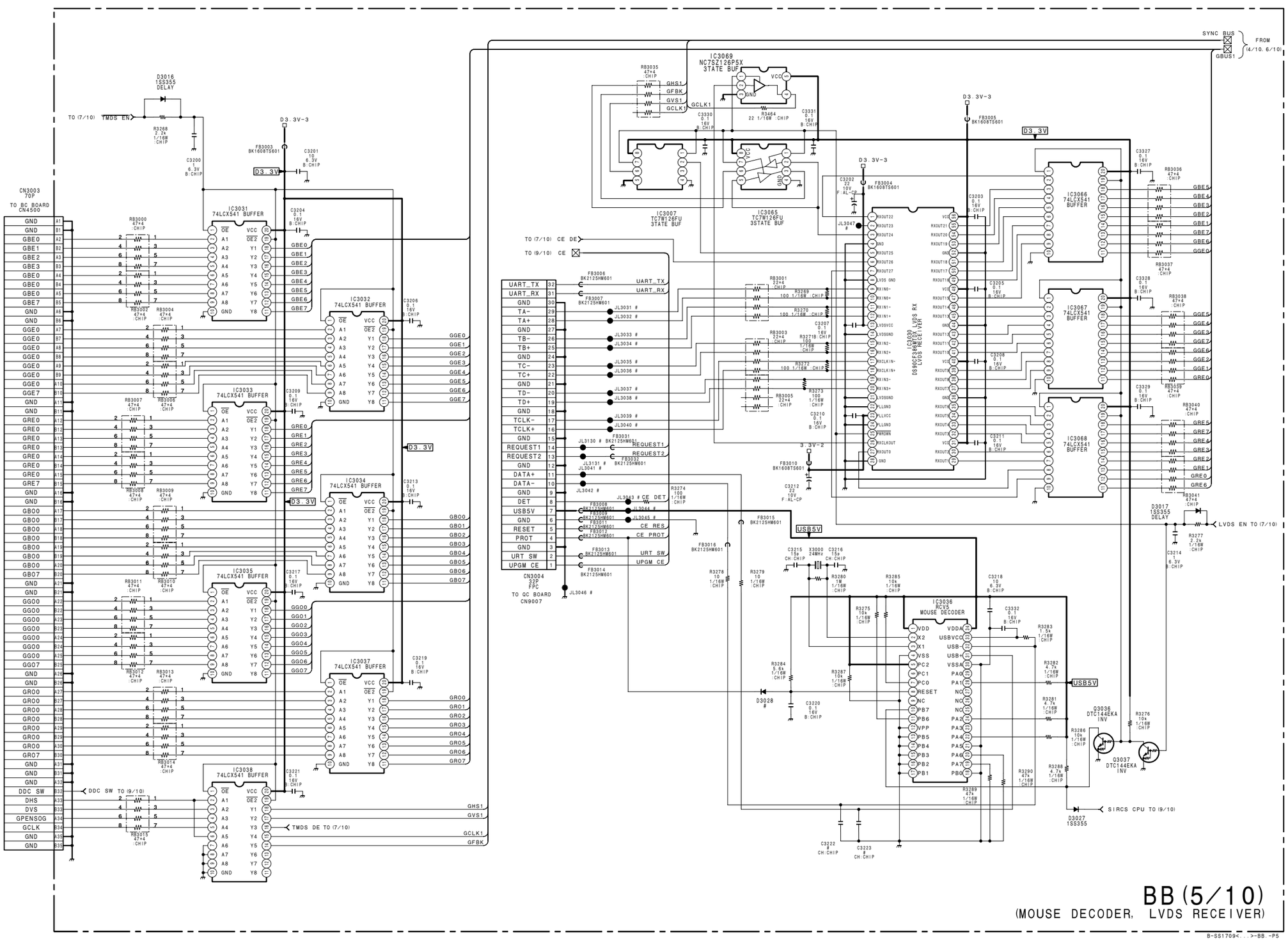
B-SS1709<. . >-BB. -P3

- **Refer to page 8-19 for Printed Wiring Board**
- **Refer to page 8-18 for Waveforms**
- **Refer to page 8-18 for IC Block Diagrams**

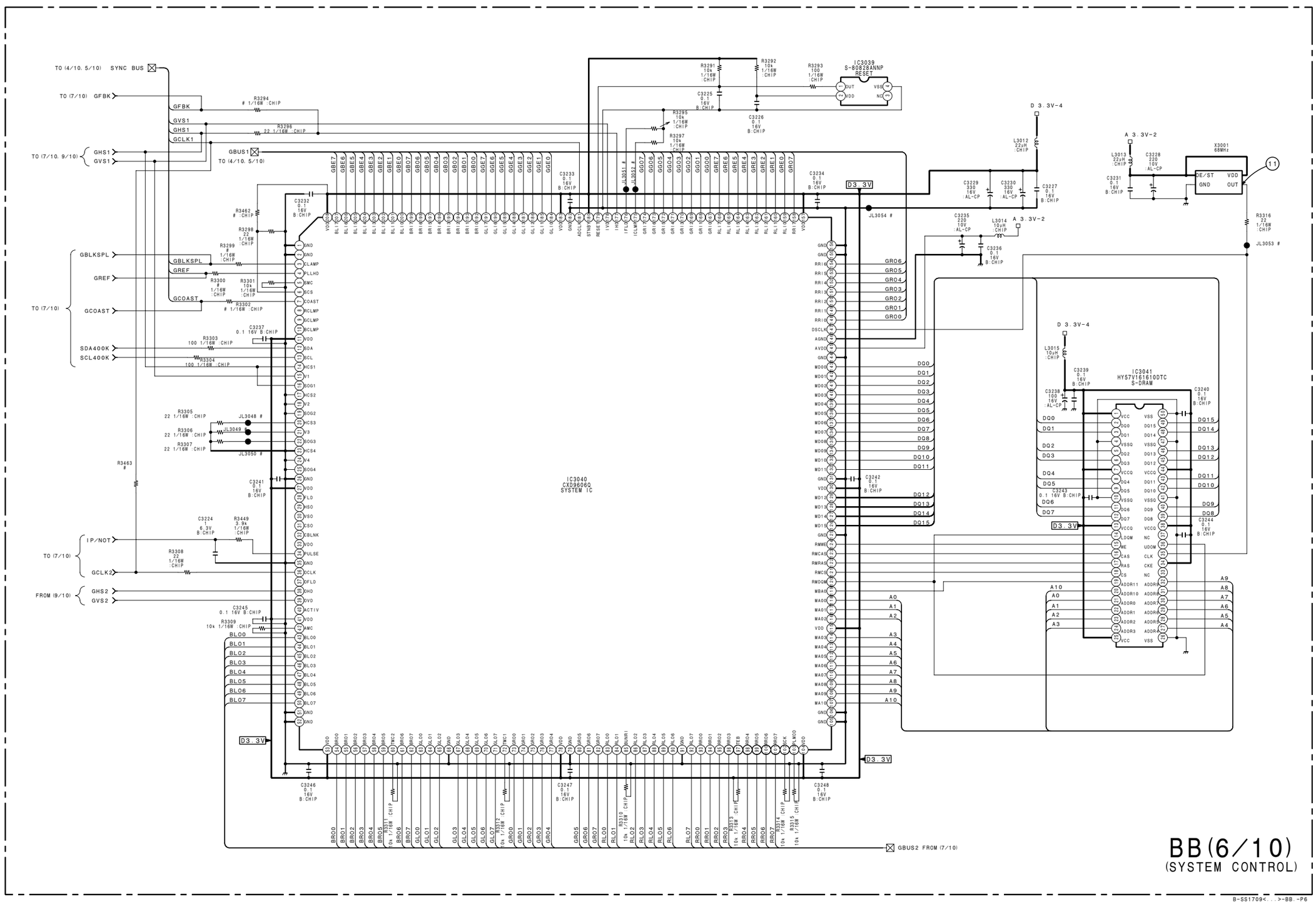


BB (4/10)
(A/D CONVERTER)

- **Refer to page 8-19 for Printed Wiring Board**
- **Refer to page 8-18 for Waveforms**
- **Refer to page 8-18 for IC Block Diagrams**

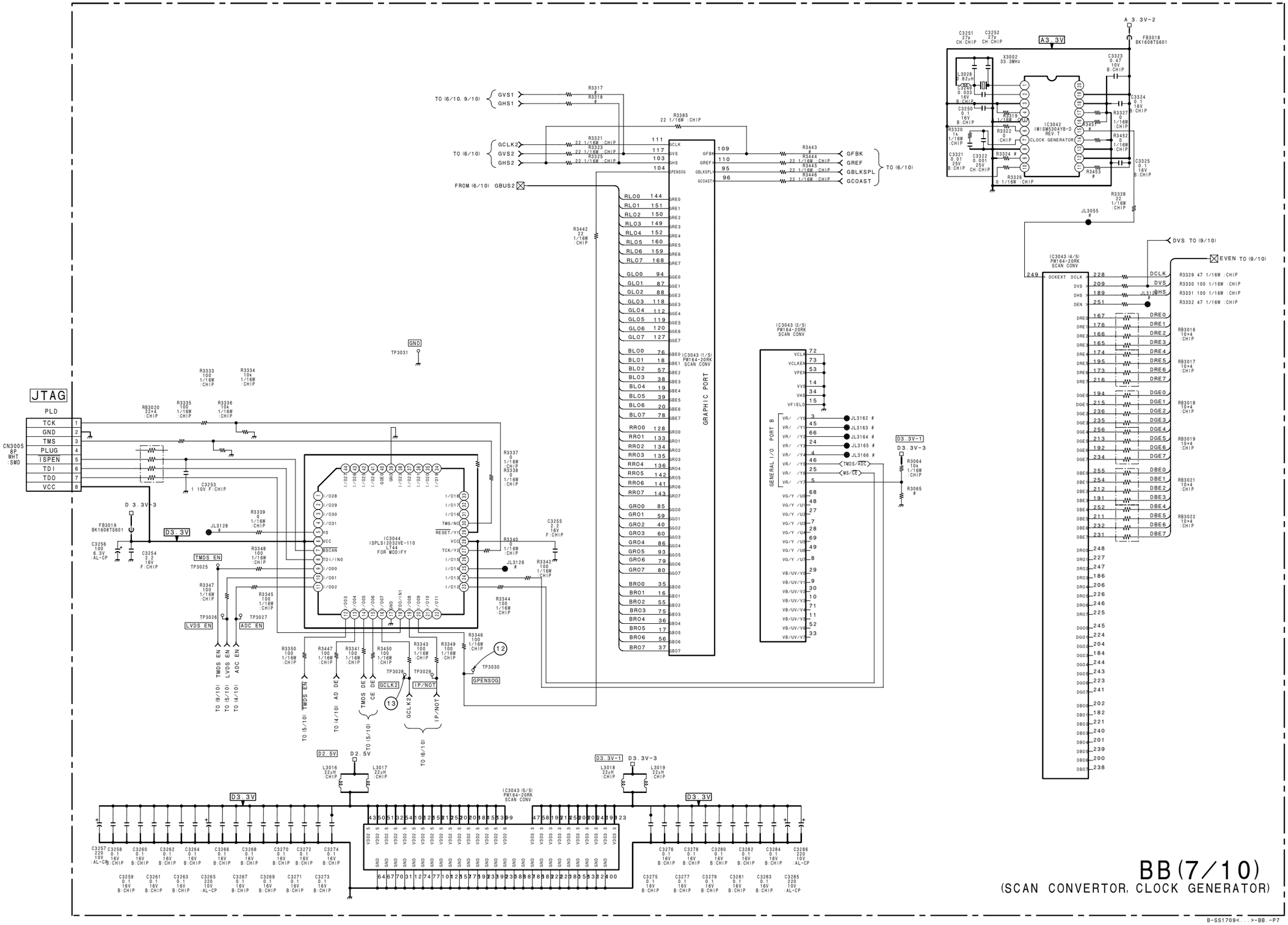


- **Refer to page 8-19 for Printed Wiring Board**
- **Refer to page 8-18 for Waveforms**
- **Refer to page 8-18 for IC Block Diagrams**



B-SS1709<...>-BB.-P6

- **Refer to page 8-19 for Printed Wiring Board**
- **Refer to page 8-18 for Waveforms**
- **Refer to page 8-18 for IC Block Diagrams**



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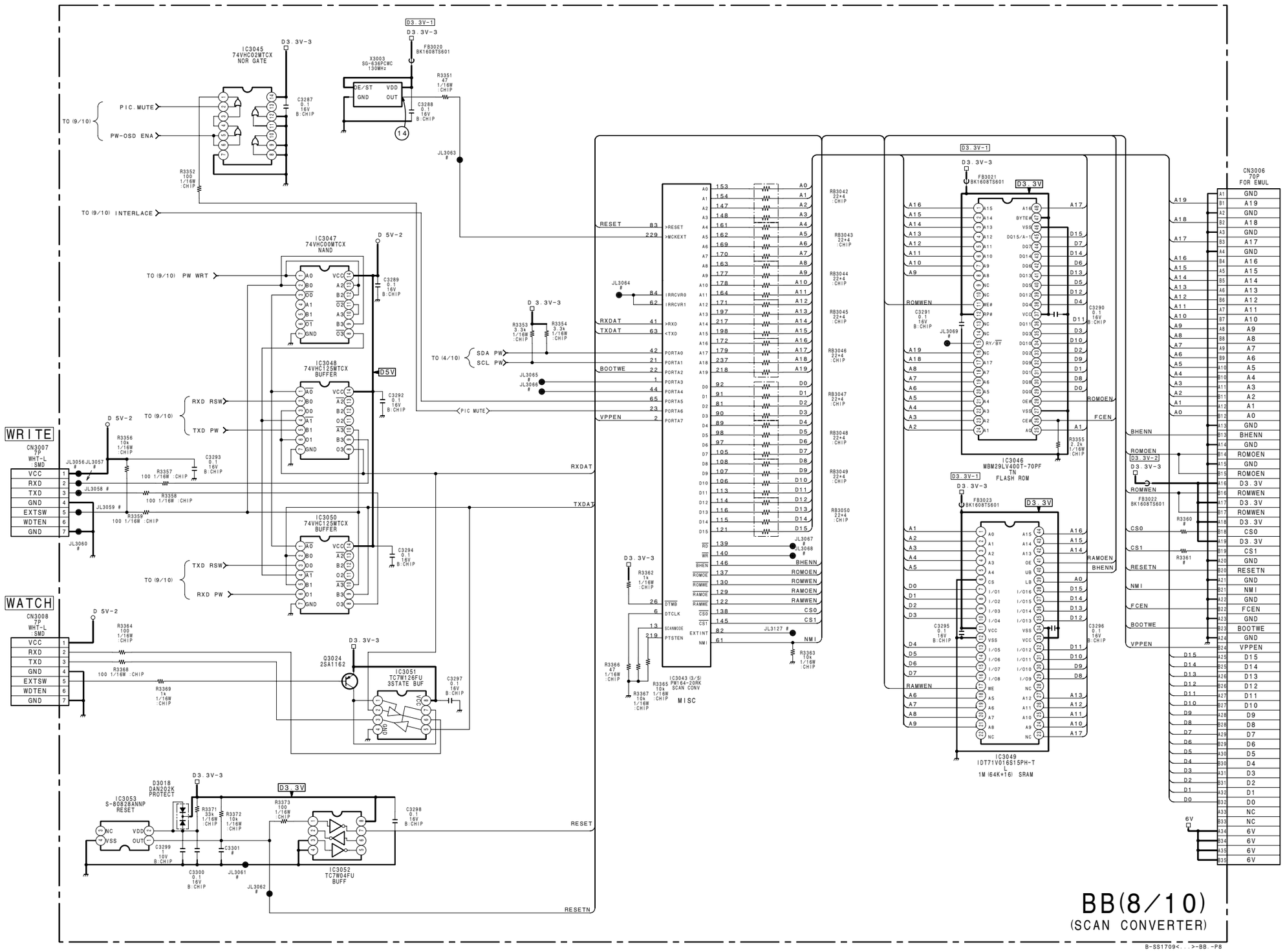
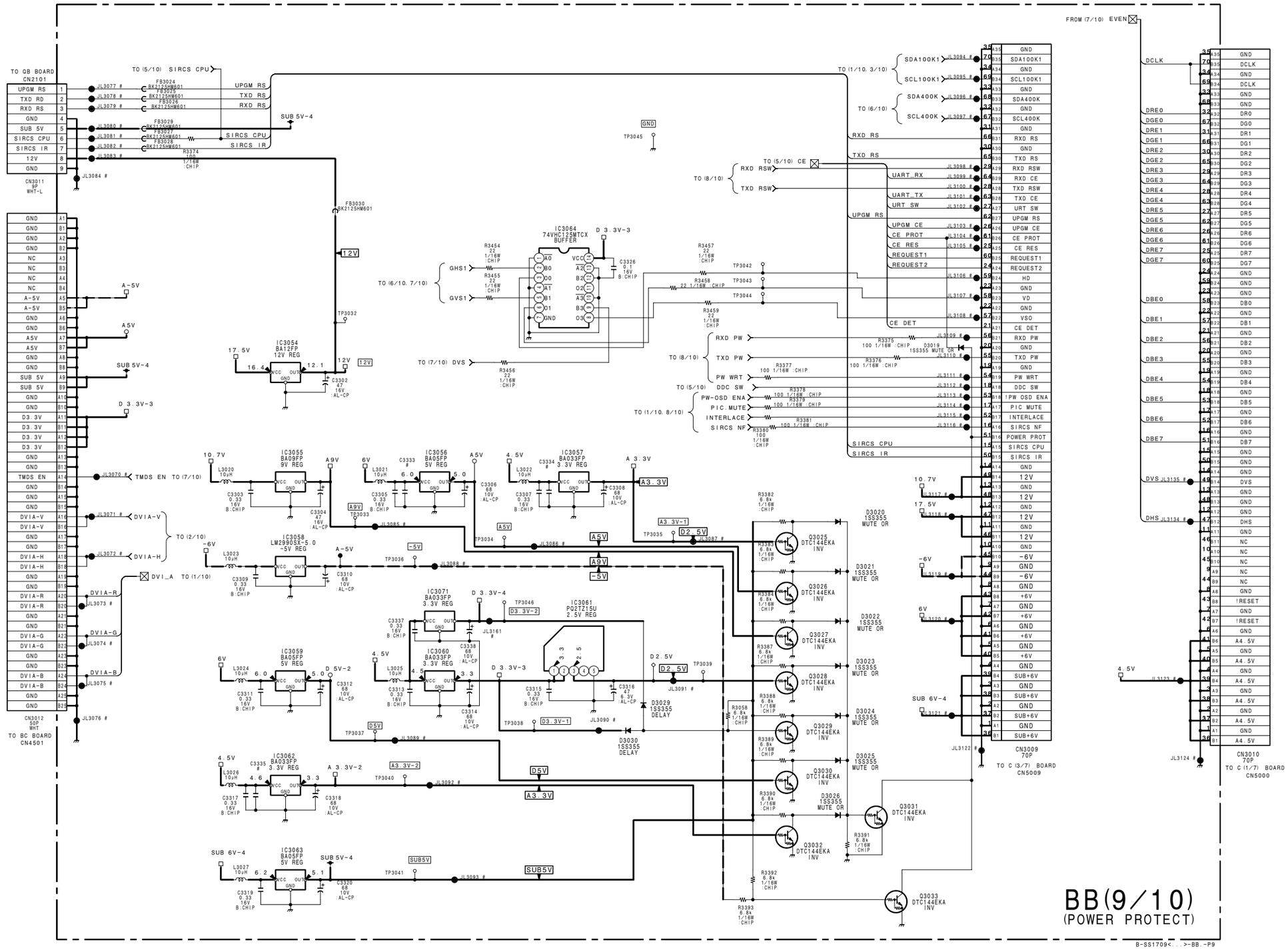
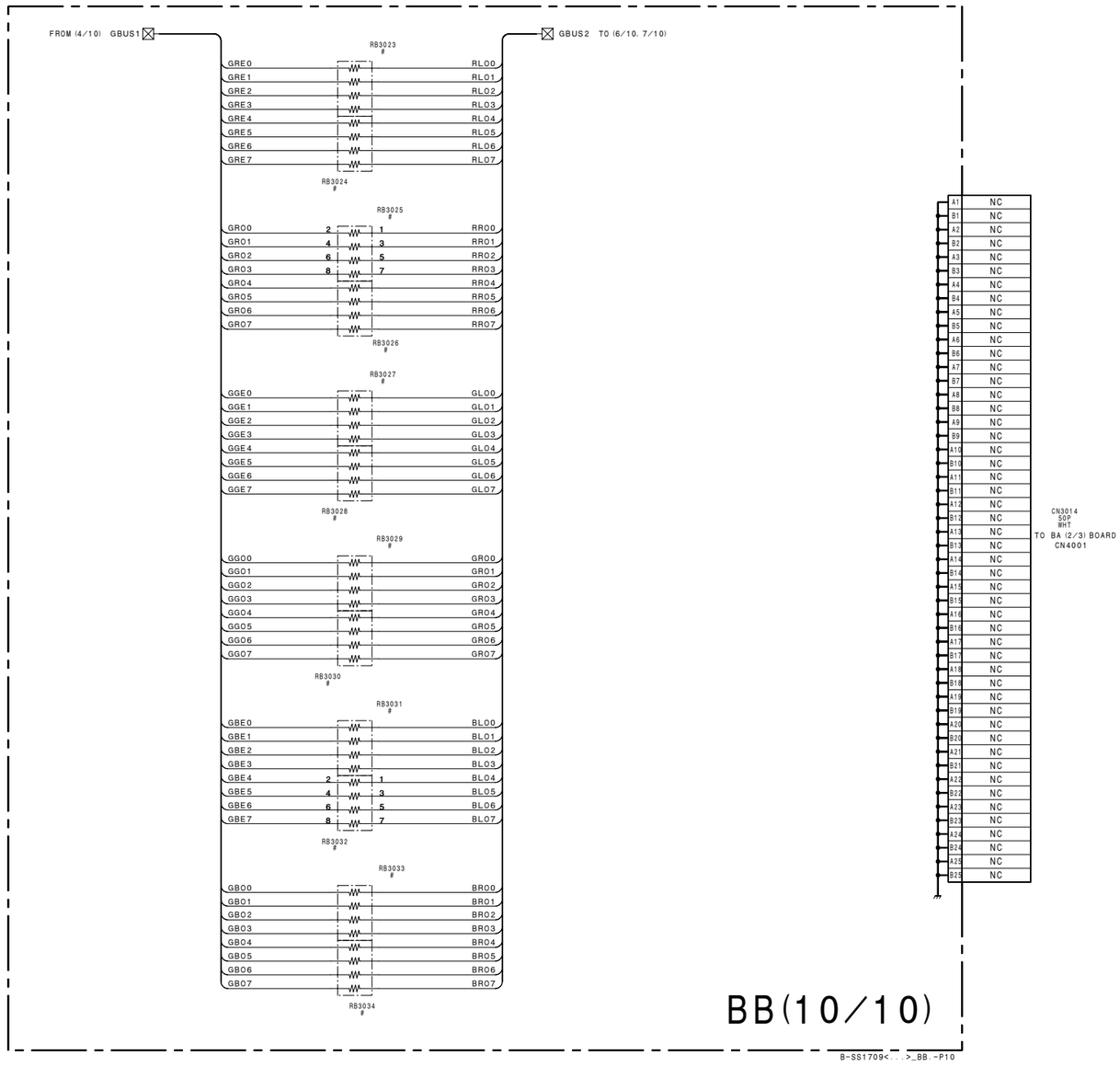
- **Refer to page 8-19 for Printed Wiring Board**
- **Refer to page 8-18 for Waveforms**
- **Refer to page 8-18 for IC Block Diagrams**



- **Refer to page 8-19 for Printed Wiring Board**
- **Refer to page 8-18 for Waveforms**
- **Refer to page 8-18 for IC Block Diagrams**



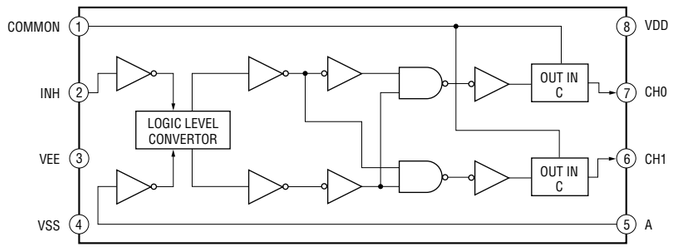
- **Refer to page 8-19 for Printed Wiring Board**
- **Refer to page 8-18 for Waveforms**
- **Refer to page 8-18 for IC Block Diagrams**



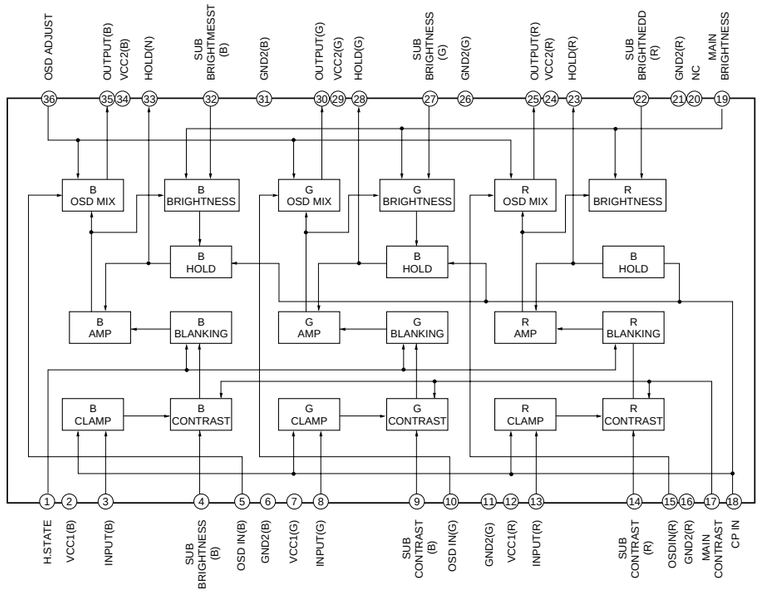
BB Board Waveforms

① 0.9Vp-p(H) TP3003 RED	② 0.8Vp-p(H) TP3004 GREEN	③ 0.8Vp-p(H) TP3005 BLUE	④ 4.5Vp-p(V) TP3007 VS	⑤ 4.2Vp-p(H) TP3008 HS
⑥ 4.3Vp-p(H) TP3006 HS	⑦ 0.8Vp-p(H) TP3018 VR	⑦ 0.8p-p(H) TP3019 VG	⑨ 0.8Vp-p(H) TP3020 VB	⑩ 4.6Vp-p(H) TP3021 SCOIN
⑪ 3.2Vp-p(68MHz)	⑫ 4.2Vp-p(H) TP3030 GPEN50G	⑬ 5.4Vp-p(H) TP3025 GCLK2		

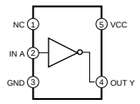
TC4W53(IC3019)
TC4W53F(IC3023)



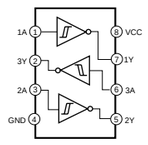
N52347FP(IC3006)



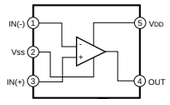
TC7S04F(IC3025)



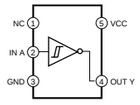
TC7W14F(IC3026)



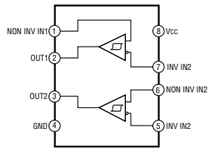
TC75S56F(IC3020)



TC7S14F(IC3021)

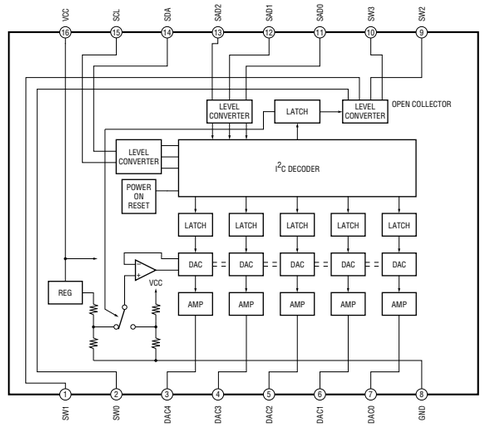


SN75157(IC3014)

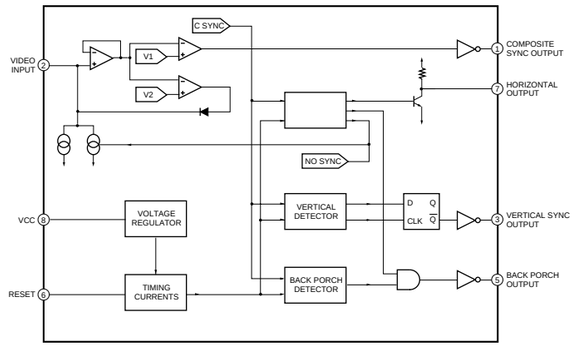


BB Board IC Block Diagrams

CXA1875AX(IC3000, 3017)

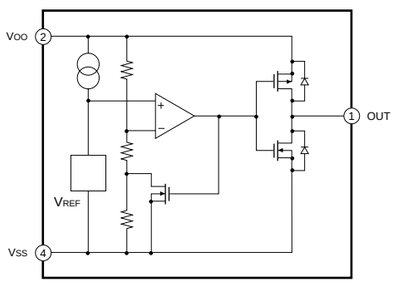


GS4981(IC3022)



BA033FP(IC3057, 3062, 3071)
BA05FP(IC3056, 3059, 3063)
BA09FP(IC3055)

S-80828ANNP(IC3039)



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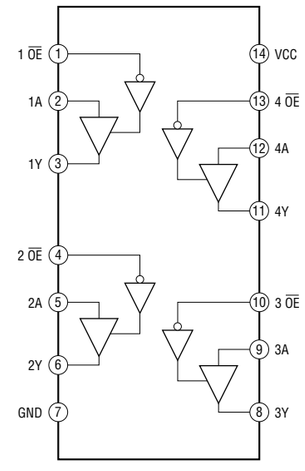
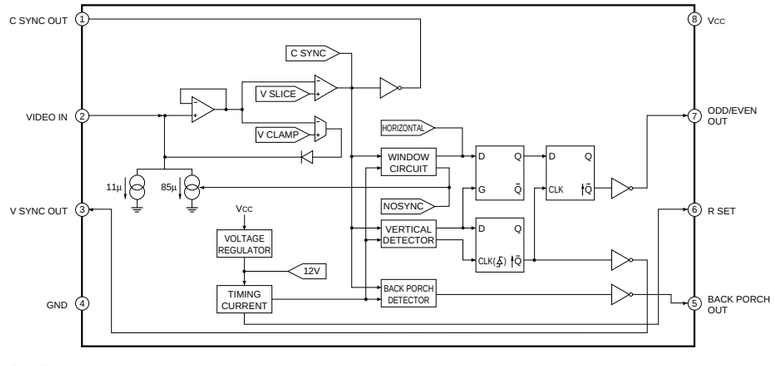


GS1881-CTA(IC3016)



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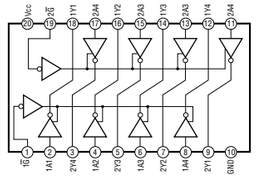

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BB
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1-680-488-11

D3000	A-4	TP3000	A-3	D3008	A-5	Q3001	B-4
D3001	A-3	TP3001	A-3	D3010	A-5	Q3002	B-5
D3002	A-3	TP3002	A-2	D3011	B-5	Q3003	A-4
D3003	A-4	TP3003	A-4	D3012	B-5	Q3004	B-5
D3004	A-3	TP3004	B-4	D3014	B-3	Q3005	B-5
D3005	A-2	TP3005	A-2	D3015	C-3	Q3006	B-5
D3009	A-1	TP3006	A-5	D3016	E-5	Q3007	B-5
D3013	B-1	TP3007	A-5	D3017	D-1	Q3008	B-5
D3019	H-1	TP3008	A-5	D3018	F-2	Q3011	B-3
D3023	G-2	TP3010	A-1	D3020	B-1	Q3012	B-3
D3025	E-4	TP3011	B-1	D3021	B-2	Q3013	B-4
D3026	E-4	TP3012	A-1	D3022	C-1	Q3014	A-1
D3028	E-5	TP3013	A-1	D3024	F-4	Q3017	B-3
		TP3014	C-4	D3027	E-2	Q3018	A-1
IC3007	D-4	TP3015	C-4	D3029	F-4	Q3019	B-4
IC3008	A-4	TP3016	C-4	D3030	F-4	Q3021	C-2
IC3013	D-4	TP3017	A-1			Q3022	C-2
IC3015	D-2	TP3018	B-3	IC3000	A-2	Q3024	H-1
IC3018	A-2	TP3019	B-3	IC3001	A-2	Q3025	B-1
IC3020	D-4	TP3020	B-2	IC3002	A-3	Q3026	B-2
IC3023	D-4	TP3021	B-2	IC3003	A-1	Q3027	C-1
IC3024	D-2	TP3022	B-2	IC3004	A-4	Q3029	F-4
IC3025	D-4	TP3023	B-2	IC3005	A-1	Q3031	E-2
IC3031	D-4	TP3024	A-2	IC3006	A-3	Q3033	E-2
IC3033	D-2	TP3025	E-1	IC3009	A-3	Q3034	C-1
IC3035	A-2	TP3026	E-1	IC3010	A-4	Q3035	A-2
IC3036	D-4	TP3027	E-1	IC3011	B-5	Q3036	E-2
IC3038	D-4	TP3028	G-1	IC3012	A-5	Q3037	E-1
IC3040	D-2	TP3029	G-1	IC3014	B-5		
IC3043	A-2	TP3030	G-1	IC3016	B-5		
IC3044	D-4	TP3031	F-1	IC3017	B-1		
IC3045	D-4	TP3032	B-5	IC3019	B-3		
IC3047	D-2	TP3033	B-5	IC3021	B-4		
IC3048	D-4	TP3034	A-4	IC3022	B-4		
IC3049	D-4	TP3035	B-5	IC3026	B-4		
IC3050	D-4	TP3036	C-5	IC3028	C-3		
IC3051	A-2	TP3037	F-2	IC3029	C-3		
IC3052	D-4	TP3038	F-2	IC3030	D-1		
IC3061	D-4	TP3039	G-2	IC3032	C-4		
IC3065	D-2	TP3040	E-3	IC3034	D-4		
IC3070	D-4	TP3041	F-1	IC3037	D-5		
		TP3042	H-5	IC3039	D-4		
Q3000	B-4	TP3043	H-5	IC3041	E-3		
Q3009	B-4	TP3044	H-5	IC3042	F-3		
Q3010	B-2	TP3045	D-5	IC3046	F-2		
Q3015	B-2	TP3046	E-2	IC3053	F-2		
Q3020	B-4			IC3054	B-1		
Q3028	B-4			IC3055	B-1		
Q3030	B-2			IC3056	B-2		
Q3032	B-2			IC3057	B-1		
				IC3058	C-1		
				IC3059	F-2		
				IC3060	F-4		
				IC3061	G-4		
				IC3062	E-2		
				IC3063	F-1		
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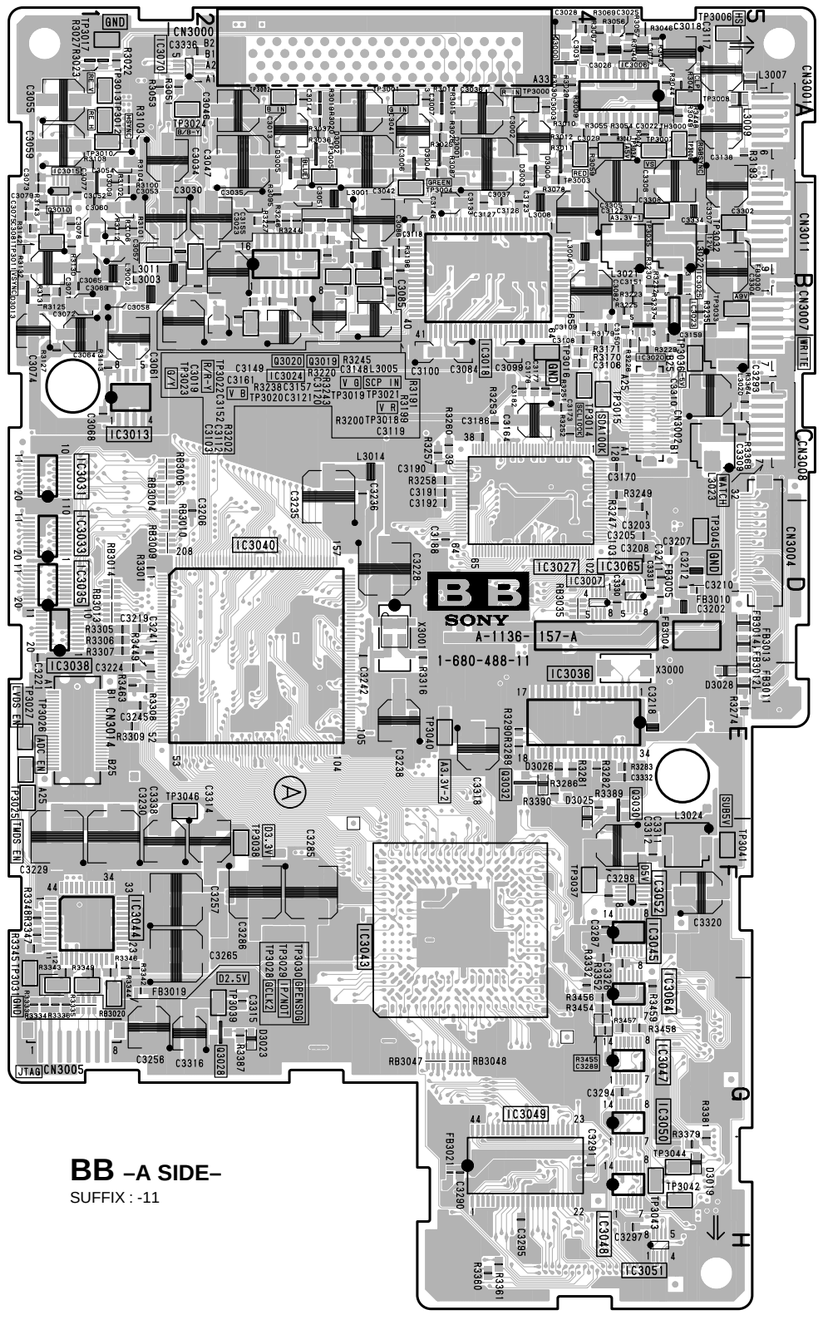
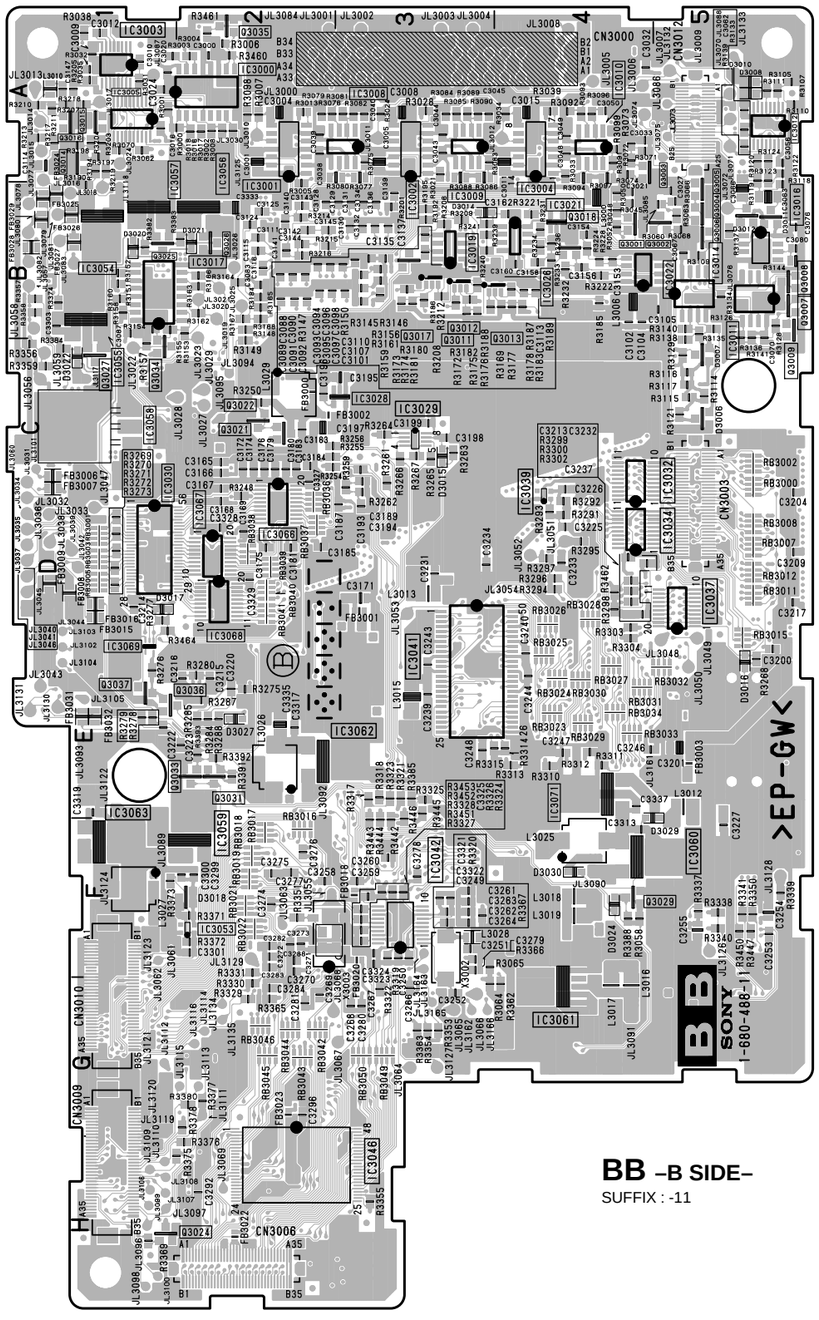
				IC3068	D-2		
				IC3069	C-1		
				IC3071	E-4		

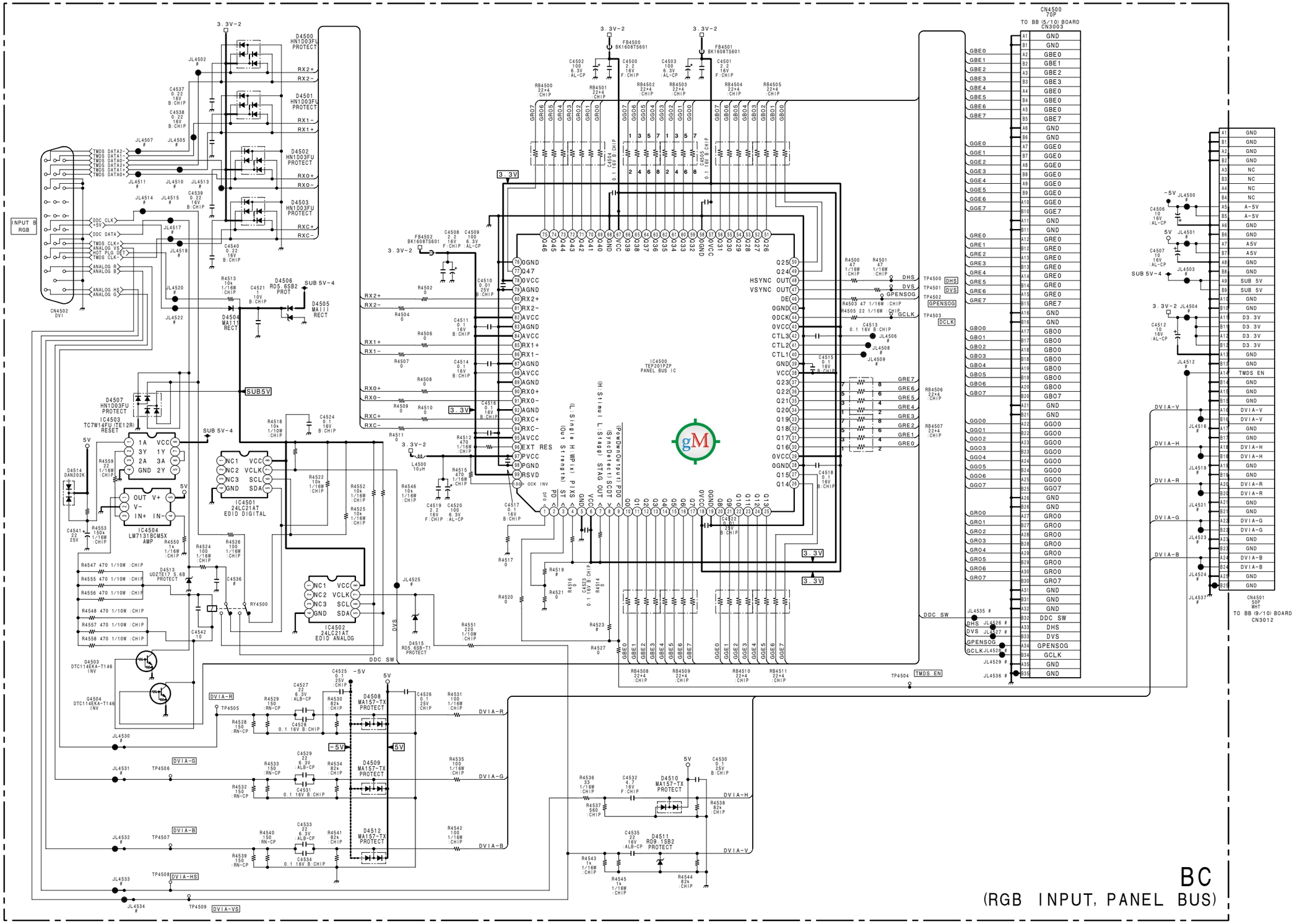


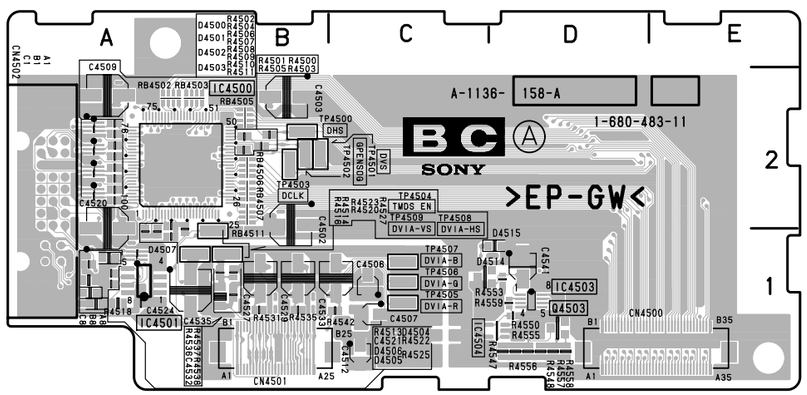
BB **–A SIDE–**
SUFFIX : -11



BB **–B SIDE–**
SUFFIX : -11

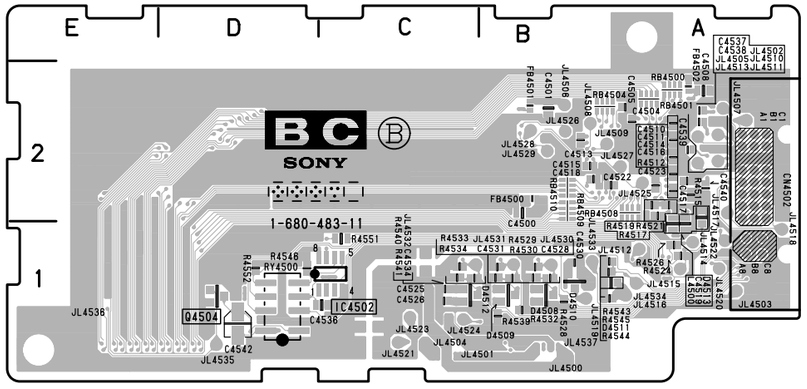
- **Refer to page 8-21 for Printed Wiring Board**
- **Refer to page 8-21 for IC Block Diagrams**





BC –A SIDE–

SUFFIX : -11

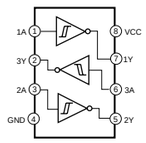


BC –B SIDE–

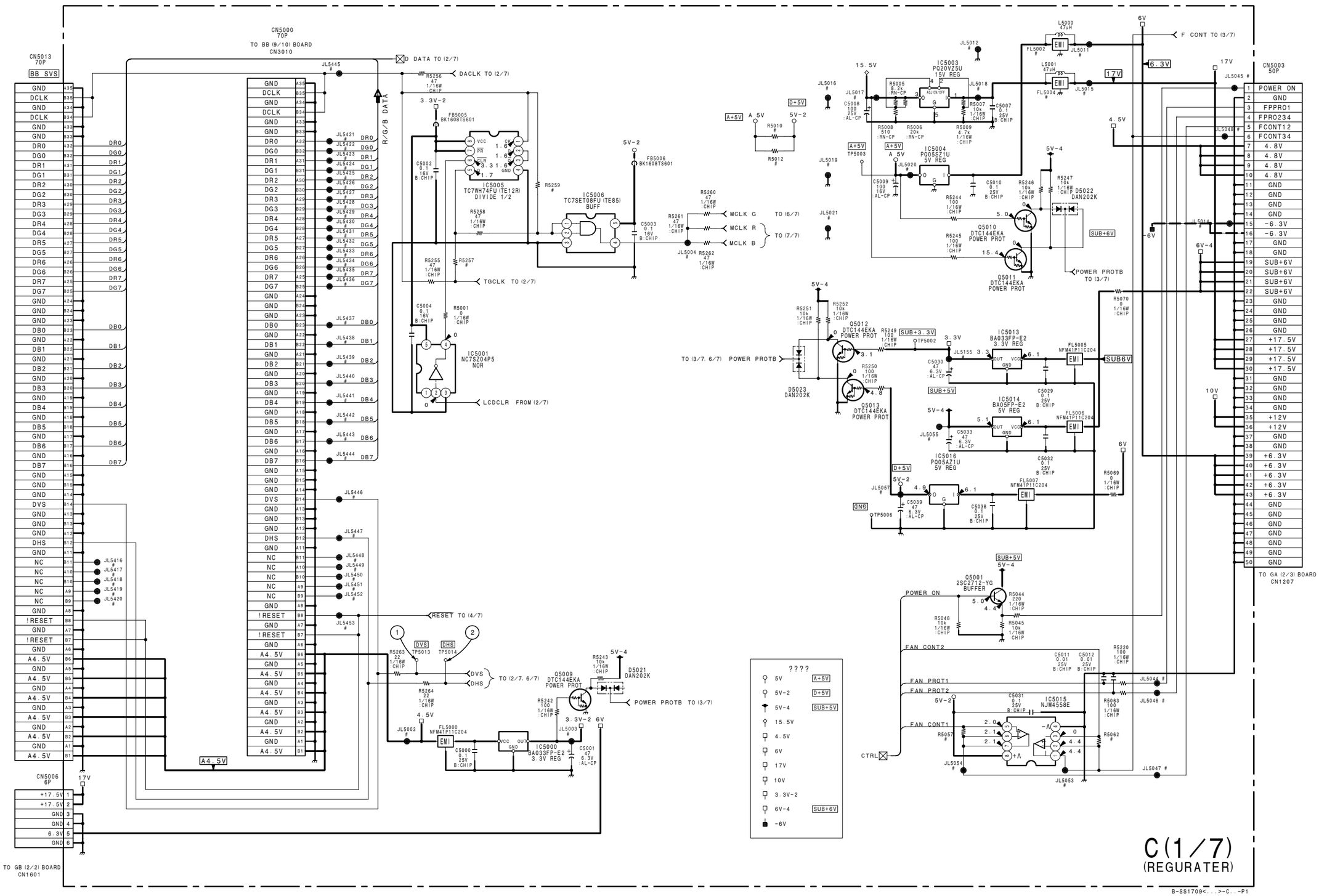
SUFFIX : -11

BC Board IC block Diagram

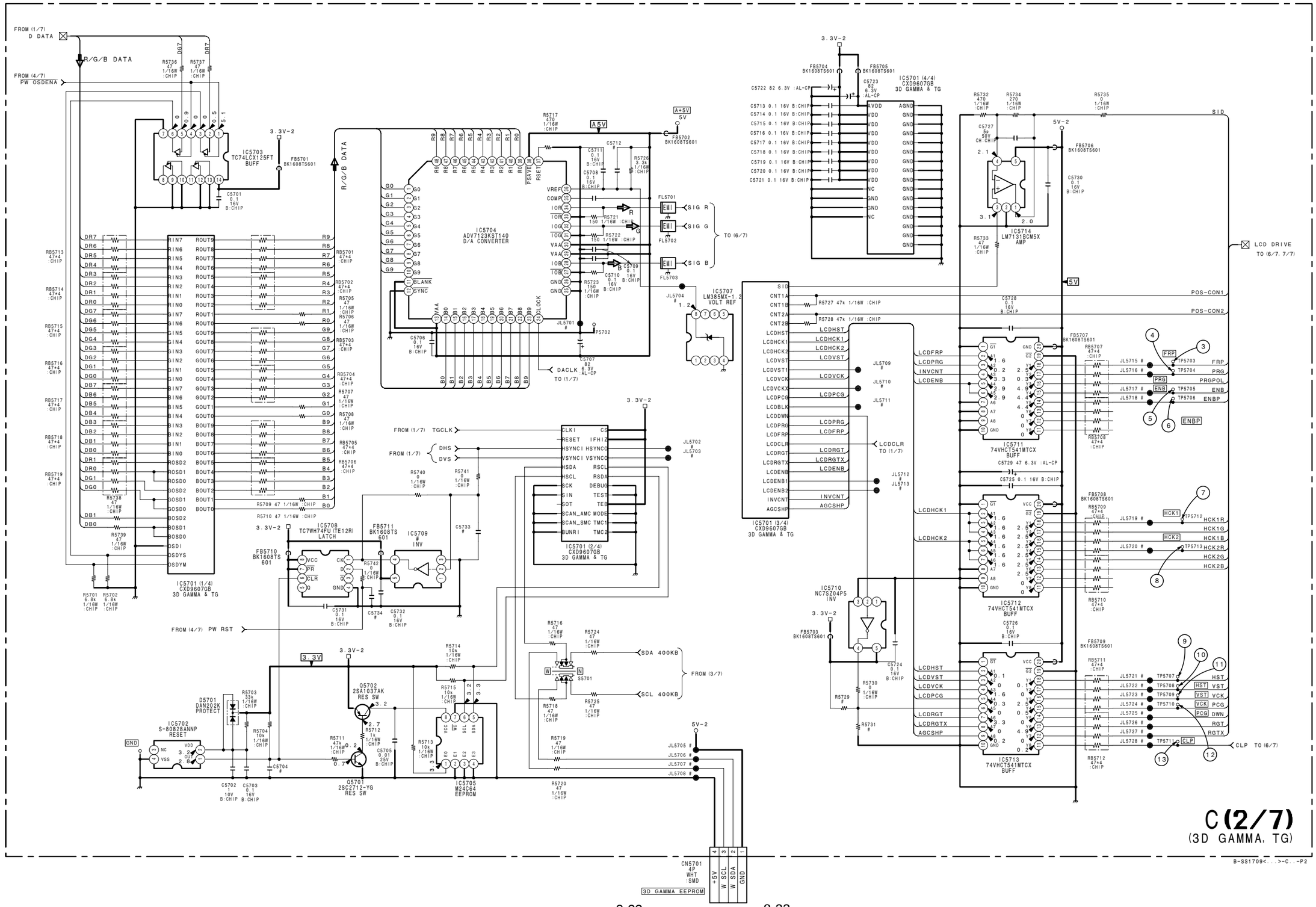
TC7W14FU(TE12R)(IC4503)



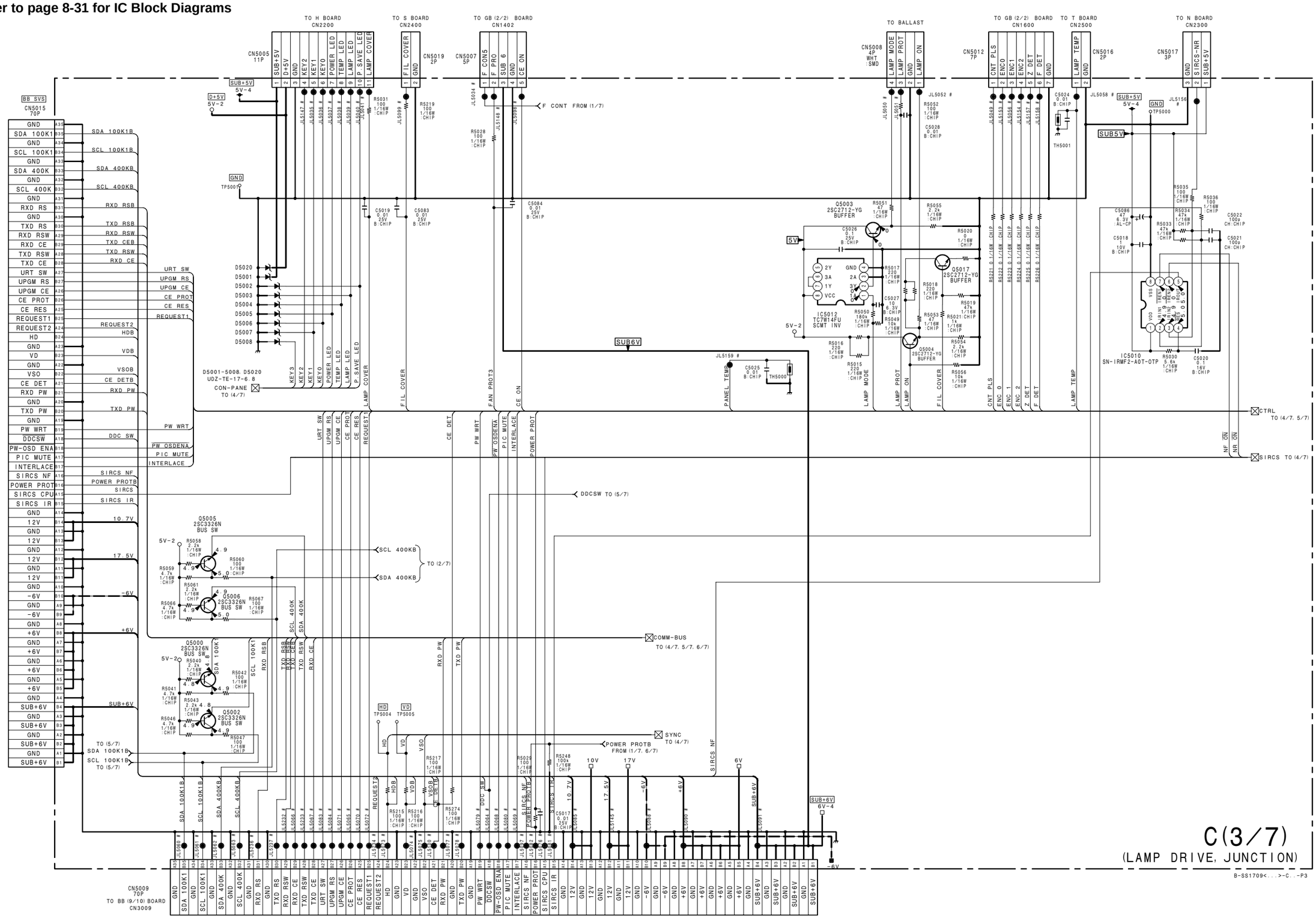
- **Refer to page 8-29 for Printed Wiring Board**
- **Refer to page 8-30 for Waveforms**
- **Refer to page 8-31 for IC Block Diagrams**



- **Refer to page 8-29 for Printed Wiring Board**
- **Refer to page 8-30 for Waveforms**
- **Refer to page 8-31 for IC Block Diagrams**



- **Refer to page 8-29 for Printed Wiring Board**
- **Refer to page 8-30 for Waveforms**
- **Refer to page 8-31 for IC Block Diagrams**



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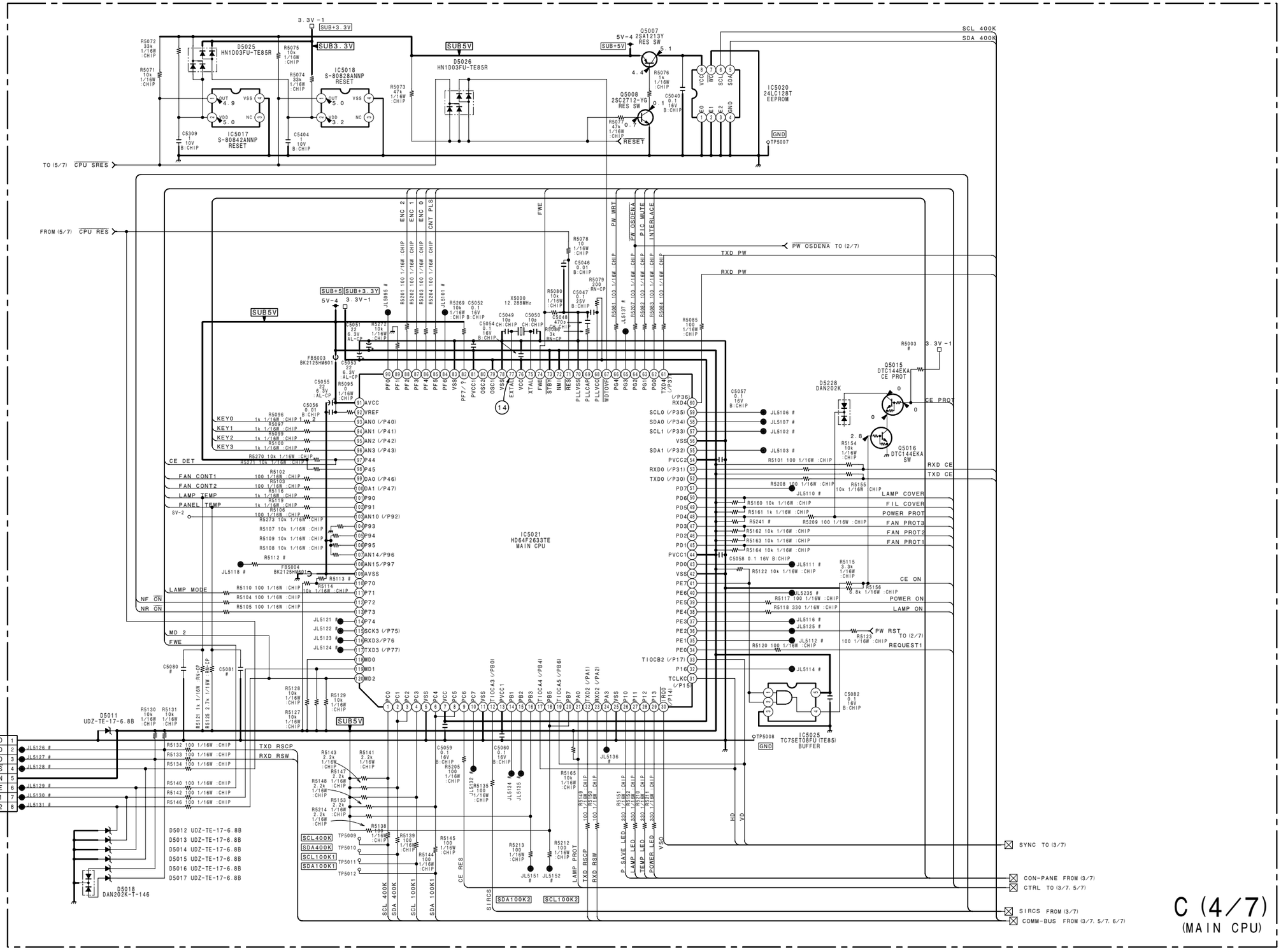
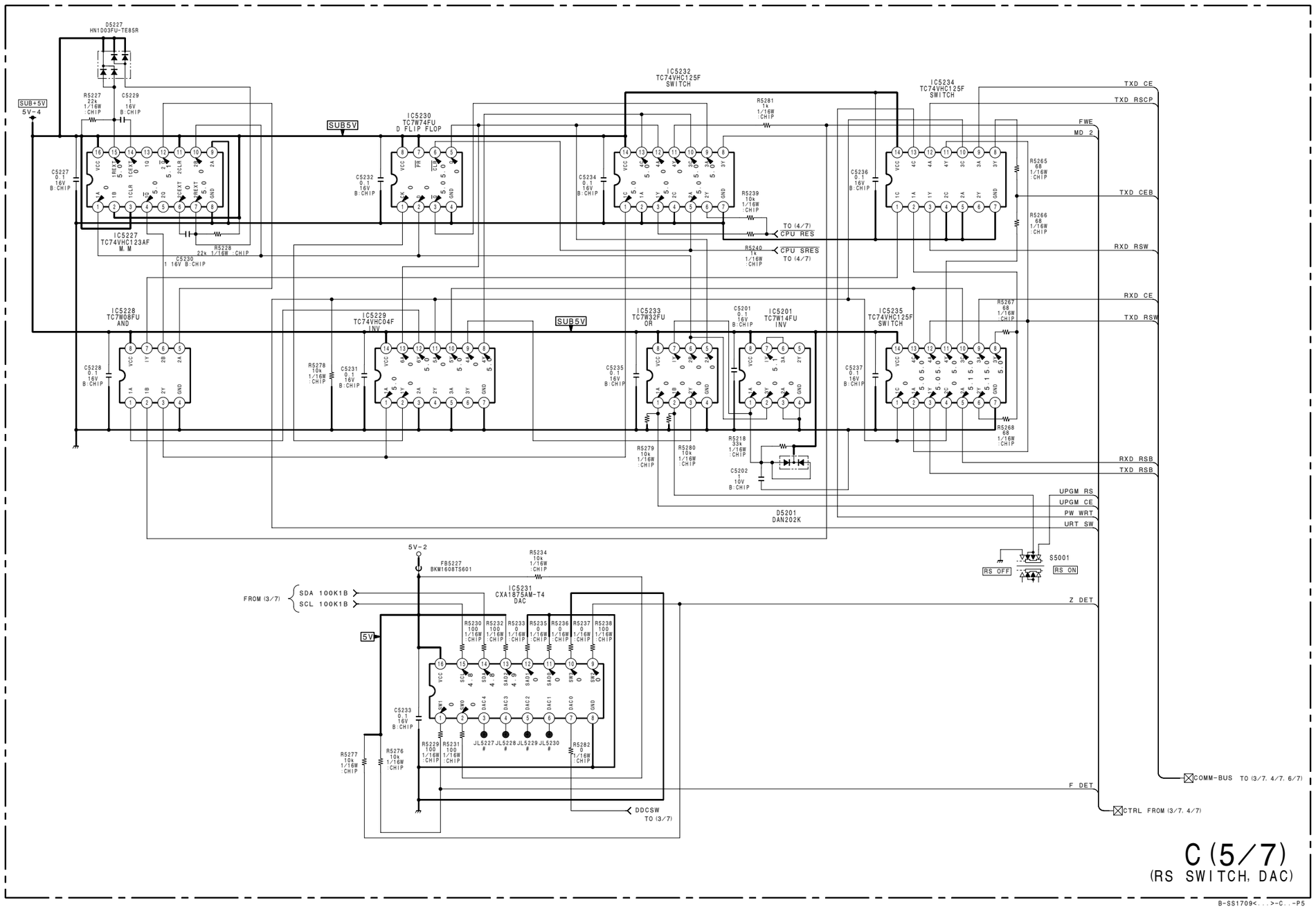
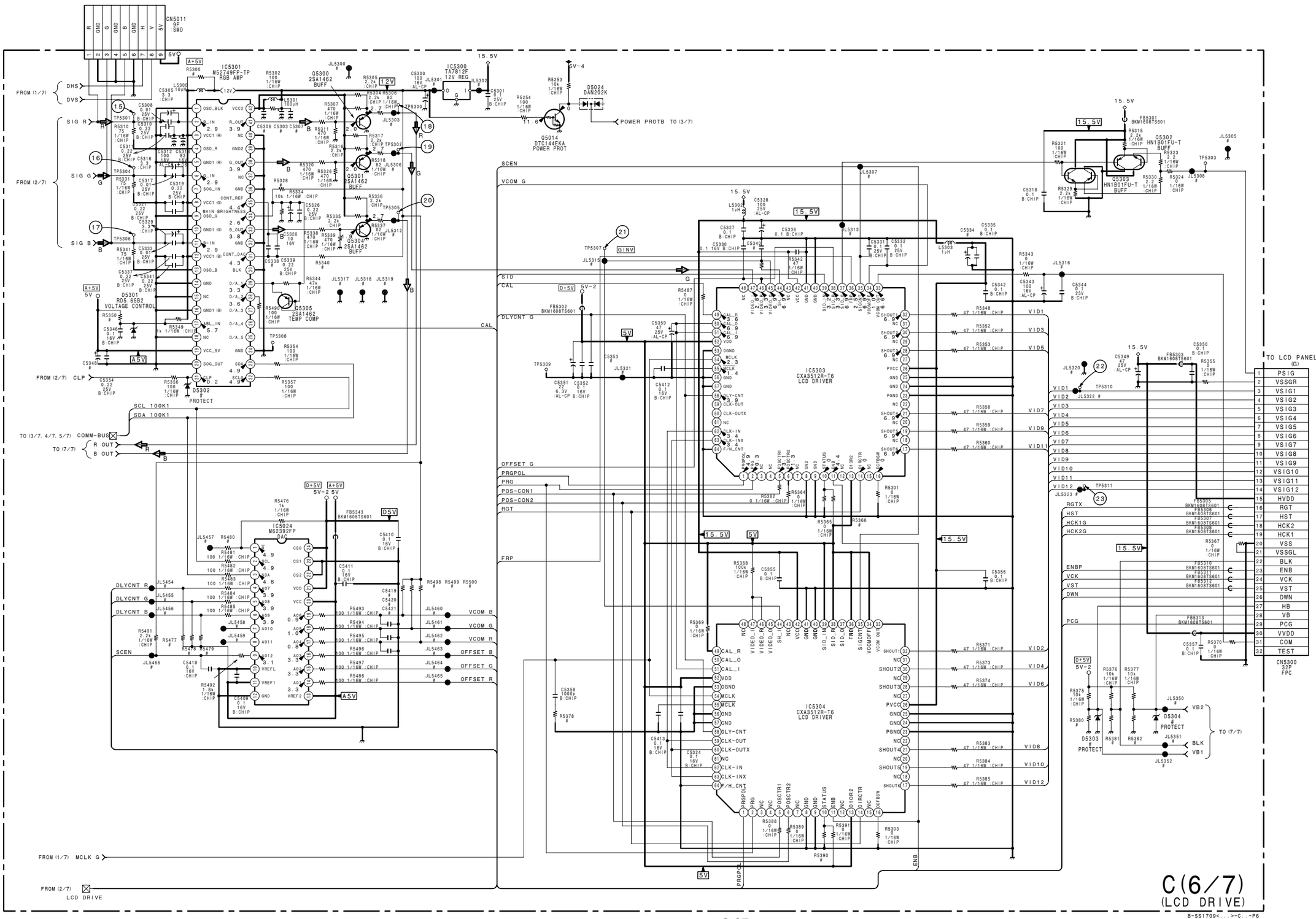
- **Refer to page 8-29 for Printed Wiring Board**
- **Refer to page 8-30 for Waveforms**
- **Refer to page 8-31 for IC Block Diagrams**



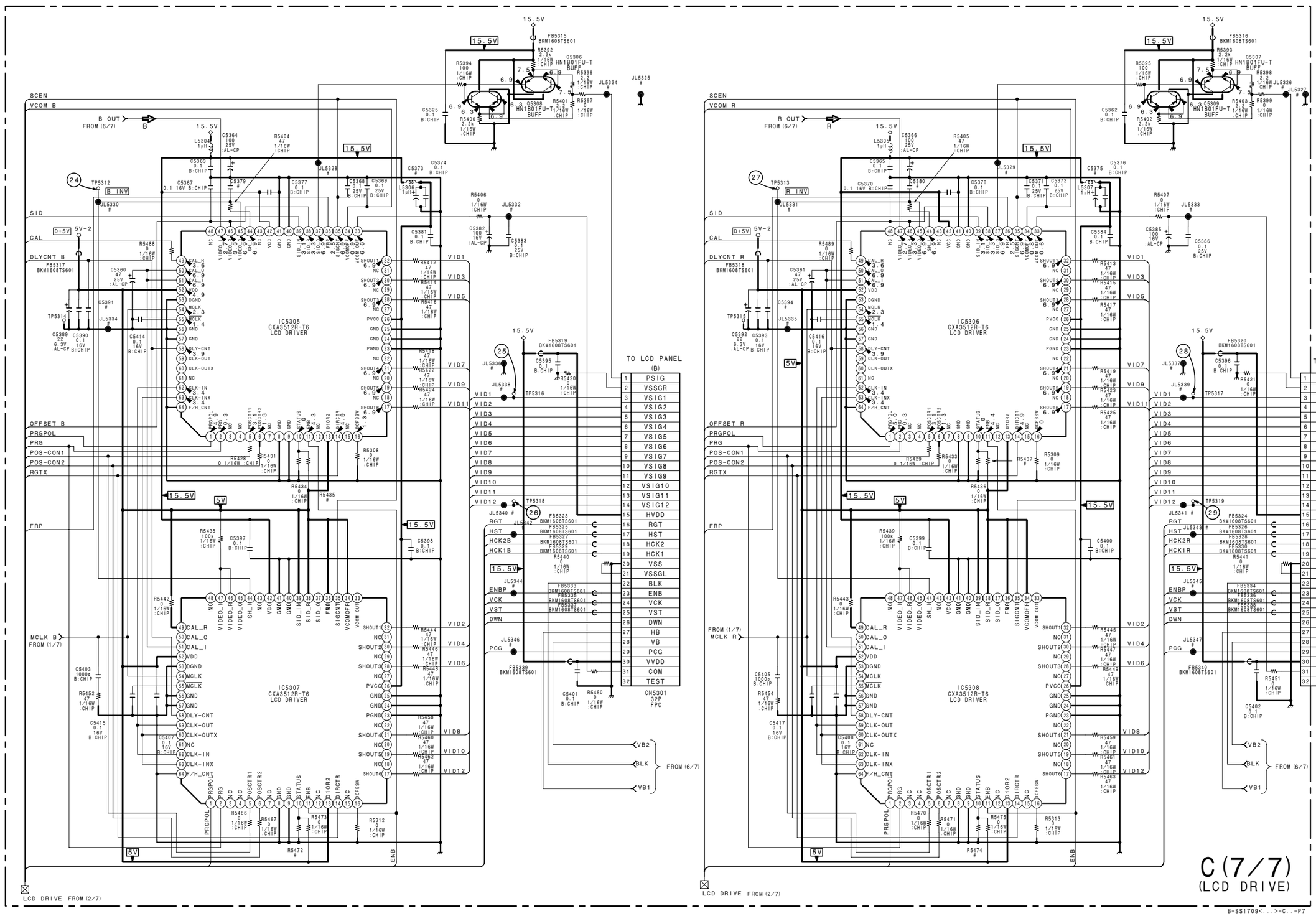
- **Refer to page 8-29 for Printed Wiring Board**
- **Refer to page 8-30 for Waveforms**
- **Refer to page 8-31 for IC Block Diagrams**

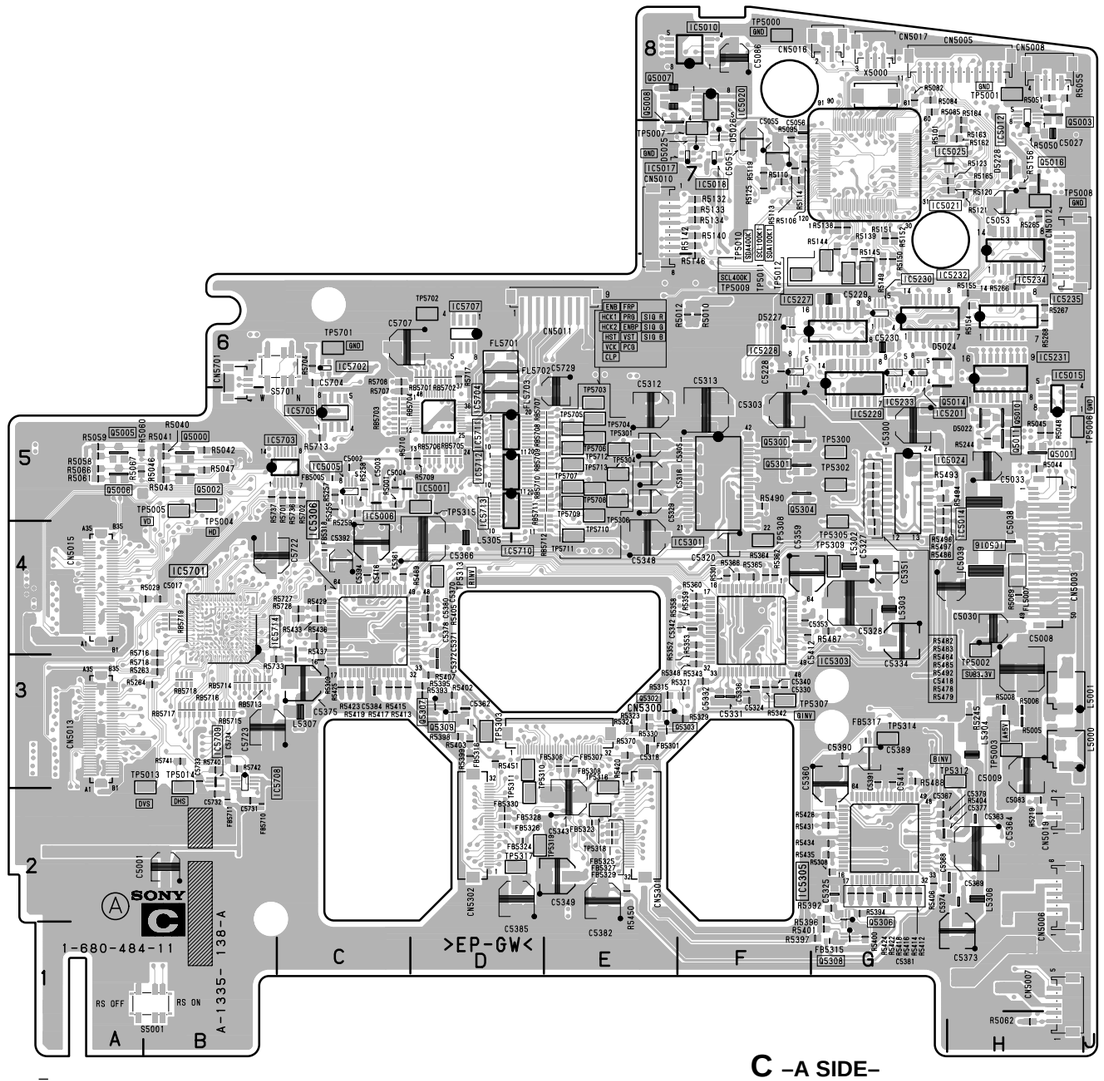


- **Refer to page 8-29 for Printed Wiring Board**
- **Refer to page 8-30 for Waveforms**
- **Refer to page 8-31 for IC Block Diagrams**



- **Refer to page 8-29 for Printed Wiring Board**
- **Refer to page 8-30 for Waveforms**
- **Refer to page 8-31 for IC Block Diagrams**

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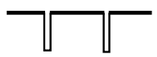
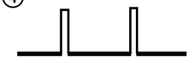
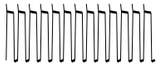
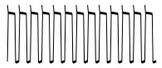
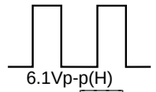
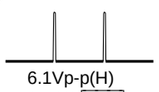
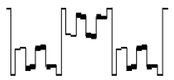
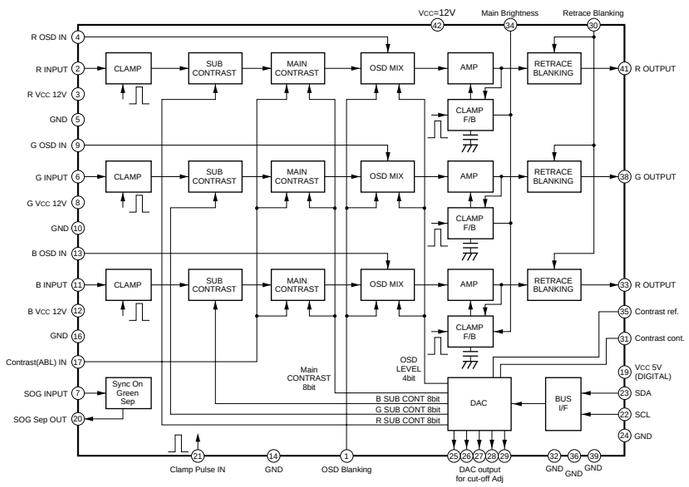
CN5341

C Board Waveforms

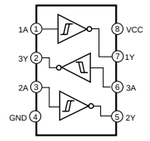
① 406Vp-p(H) TP5013 DVS	②  4.0Vp-p(H) TP5014 DHS	③ 6.0Vp-p(H) TP5703 FRP	④  6.3Vp-p(H) TP5704 PRG	⑤ 6.0Vp-p(H) TP5705 ENB
⑥ 6.0Vp-p(H) TP5706 ENBP	⑦  7.3Vp-p(500ns) TP5712 HCK1	⑧  7.3Vp-p(500ns) TP5713 HCK2	⑨ 5.2Vp-p(H) TP5707 HST	⑩ 6.2Vp-p(H) TP5708 VST
⑪  6.1Vp-p(H) TP5709 VCK	⑫  6.1Vp-p(H) TP5710 PCG	⑬ 6.1Vp-p(H) TP5711 CLP	⑭ 2.9Vp-p(12.288MHz)	⑮ 1.1Vp-p(H) TP5301
⑯ 1.1Vp-p(H) TP5304	⑰ 1.2Vp-p(H) TP5306	⑱ 1.4Vp-p(H) TP5300	⑲ 1.5Vp-p(H) TP5302	⑳ 1.4Vp-p(H) TP5305
㉑ 7.9Vp-p(H) TP5307 G INV	㉒ 11.1Vp-p(H) TP55310	㉓ 11.1Vp-p(H) TP5311	㉔ 7.6Vp-p(H) TP5312 B INV	㉕ 11.1Vp-p(H) TP5318
㉖ 11.1Vp-p(H) TP5316	㉗  7.6Vp-p(H) TP5313 R INV	㉘ 11.1Vp-p(H) TP5317	㉙ 11.1Vp-p(H) TP5319	

C Board IC Block Diagrams

M52749FP-TP(IC5301)

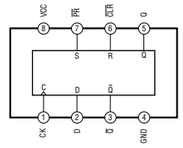


TC7W14FU(IC5002, 5201)

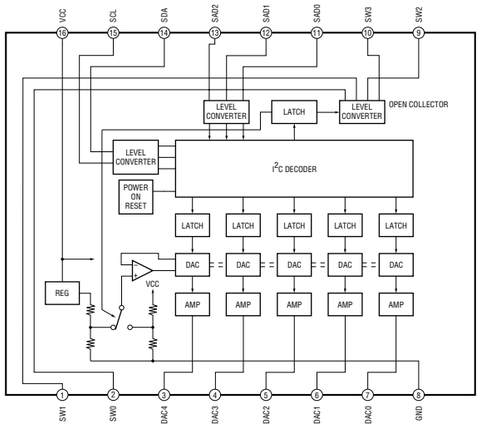


TC7W74FU(IC5230)

TC7WH74FU(TE12R)(IC5005, 5708)

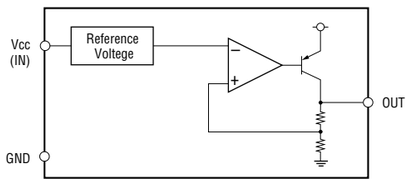


CXA1875AM-T4(IC5231)

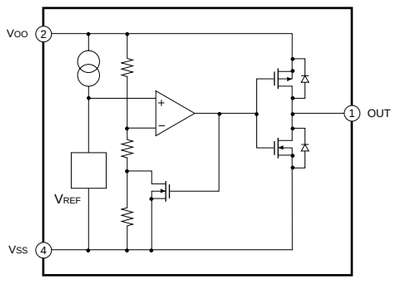


GA Board IC Block Diagrams

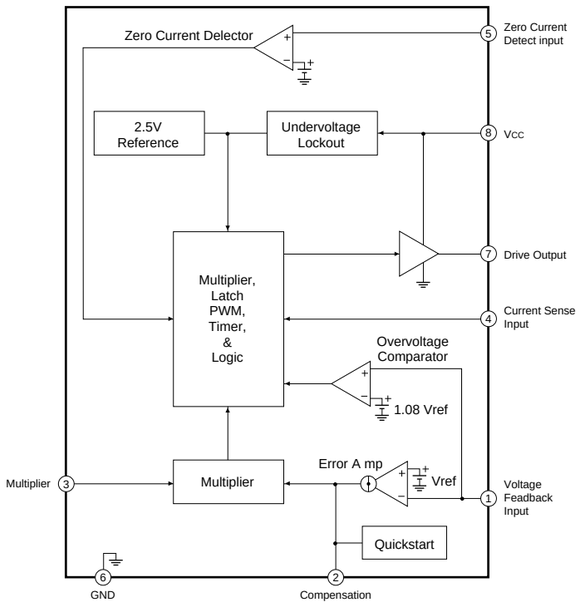
BA033FP-E2(IC5000, 5013)
BA05FP-E2(IC5014)



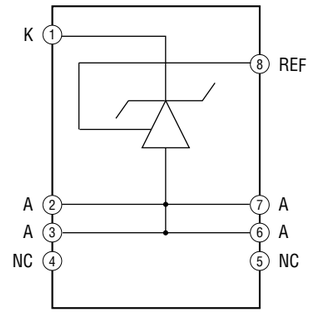
S-80828ANNP(IC5017, 5018, 5702)



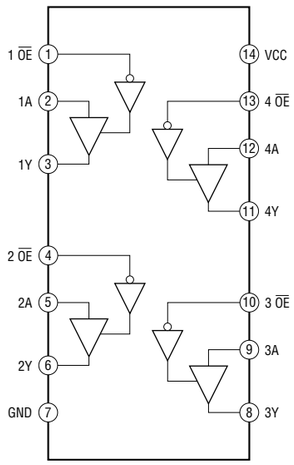
MC33262DR2(IC1000)



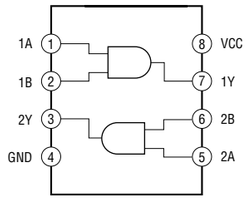
TL431BCDR2(IC1001, 1202)



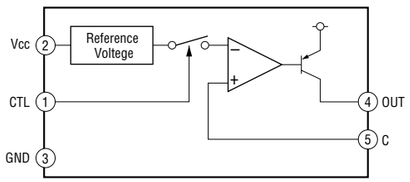
TC74VHC125F(IC5232, 5234, 5235)



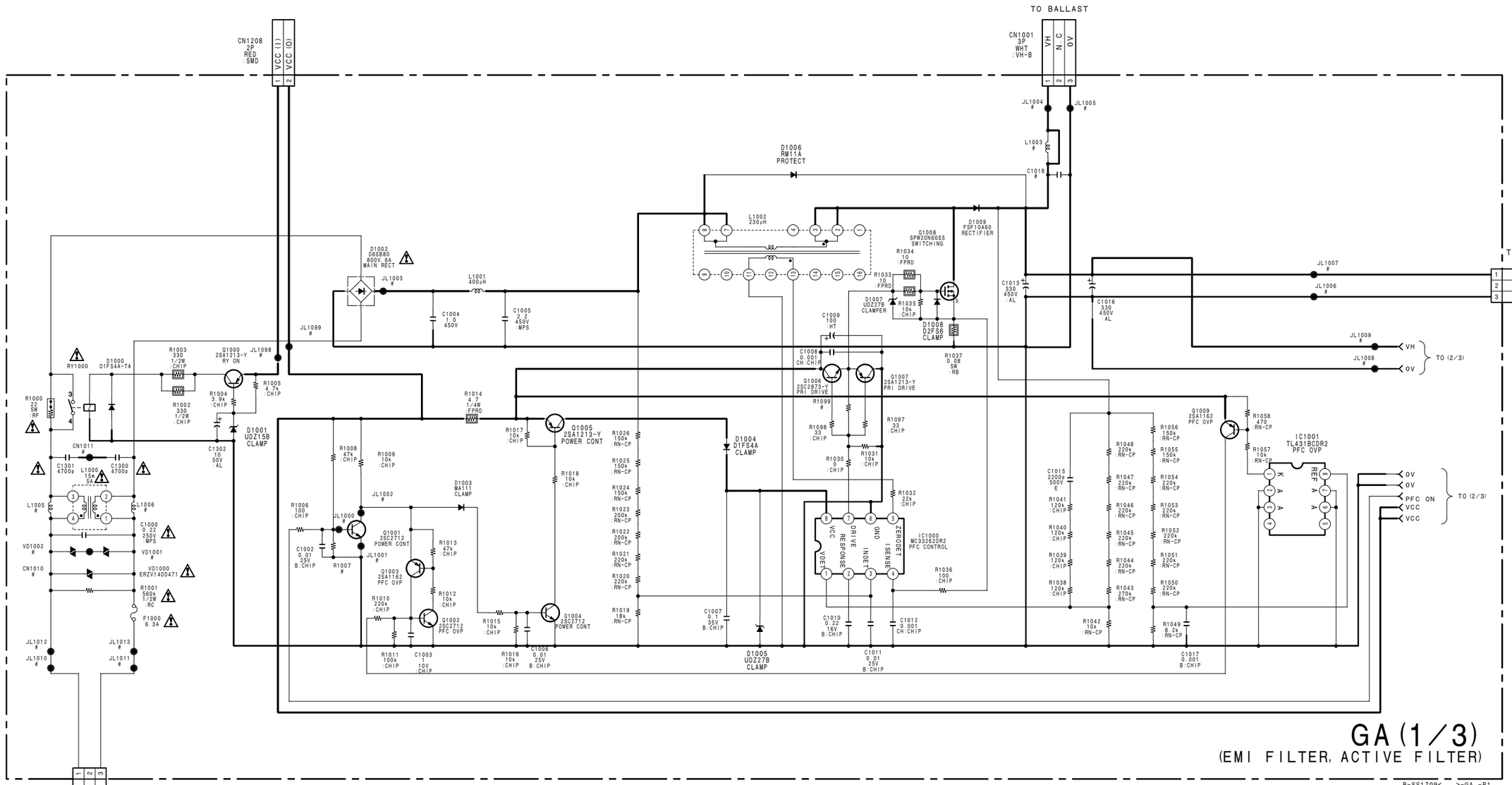
TC7W08FU(IC5228)



BA00AST(IC1206, 1207, 1208, 1209)

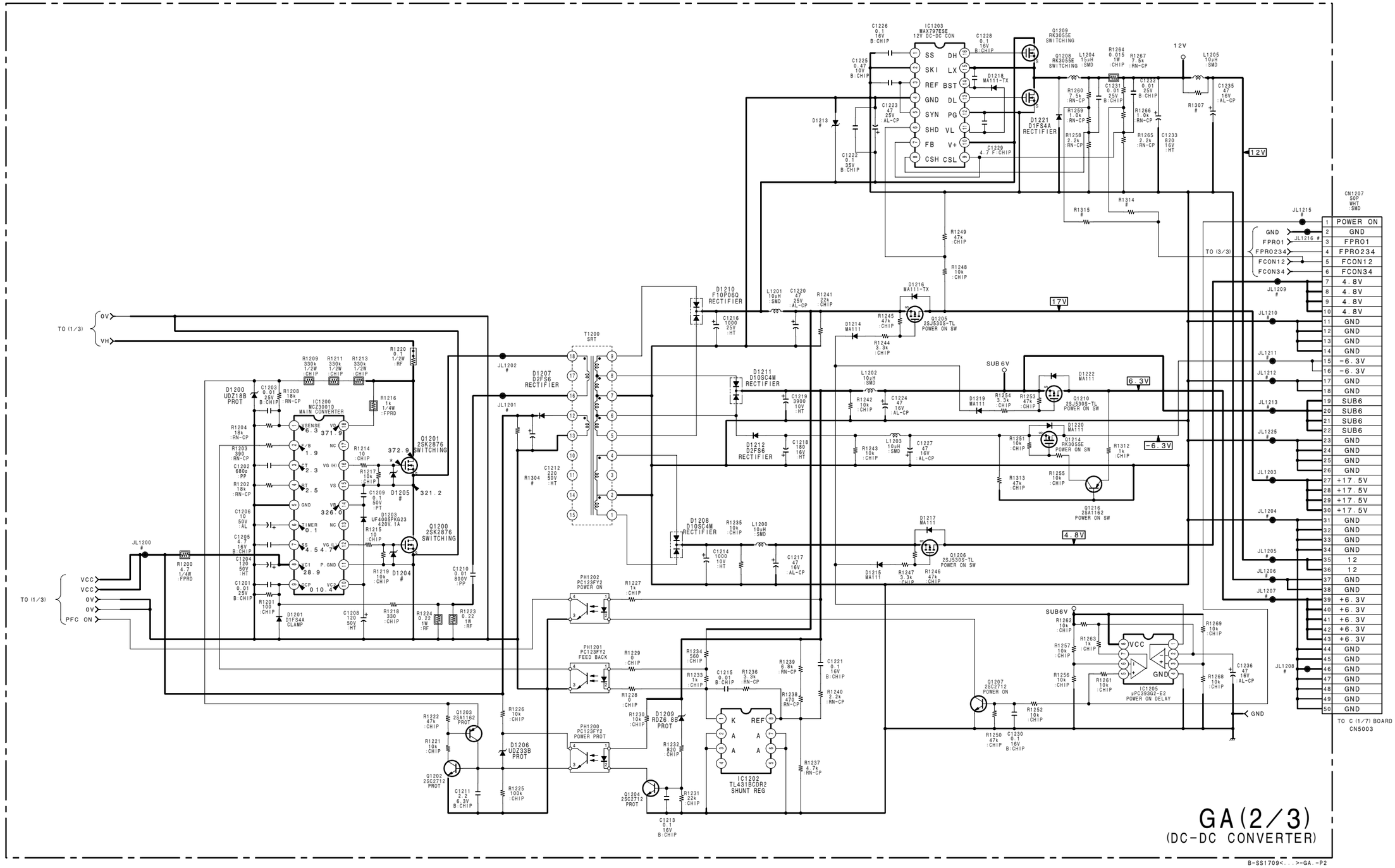


- **Refer to page 8-35 for Printed Wiring Board**
- **Refer to page 8-31 for IC Block Diagrams**

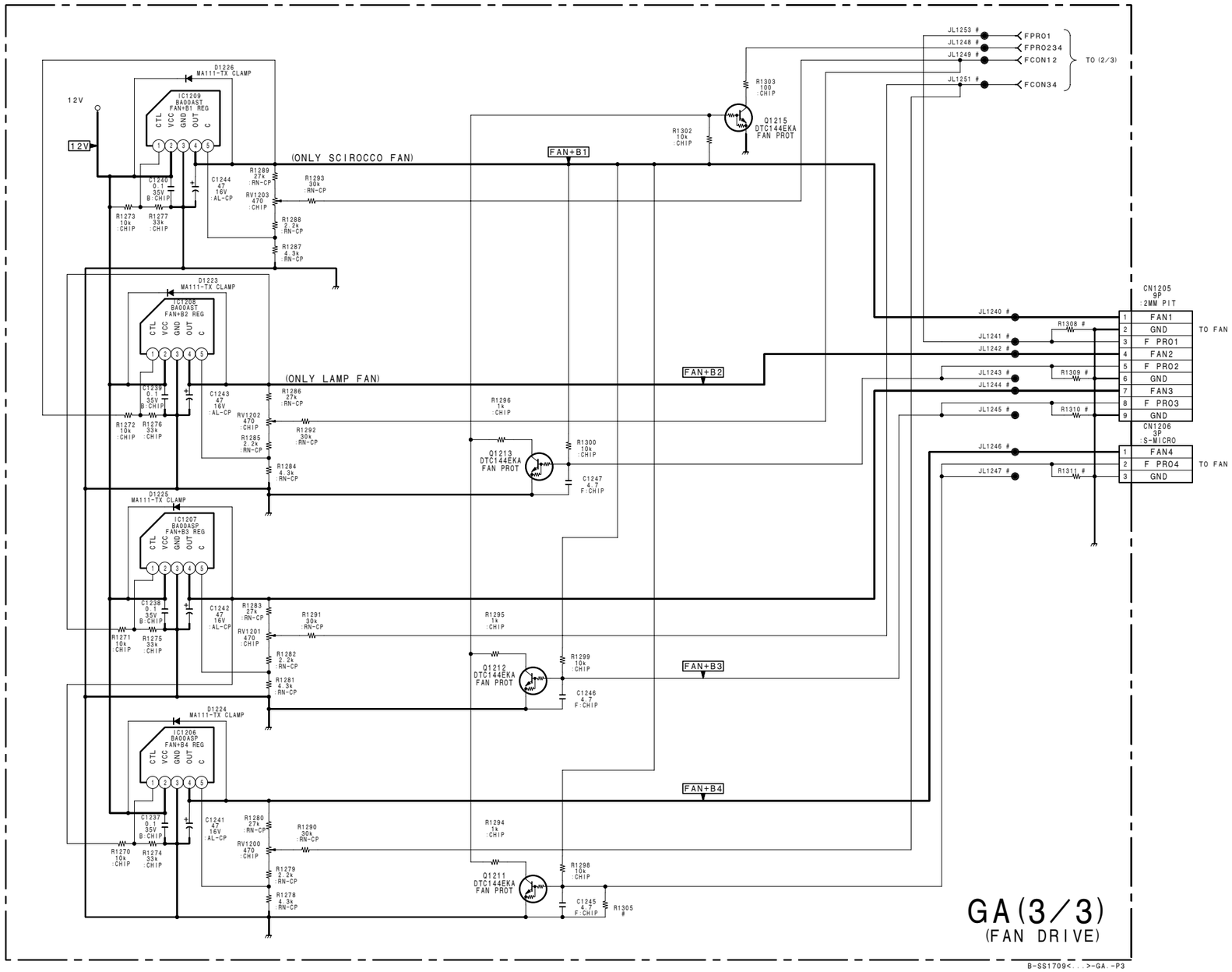


Note : # mark part is not mounted.

- **Refer to page 8-35 for Printed Wiring Board**
- **Refer to page 8-31 for IC Block Diagrams**



- **Refer to page 8-35 for Printed Wiring Board**
- **Refer to page 8-31 for IC Block Diagrams**



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GA
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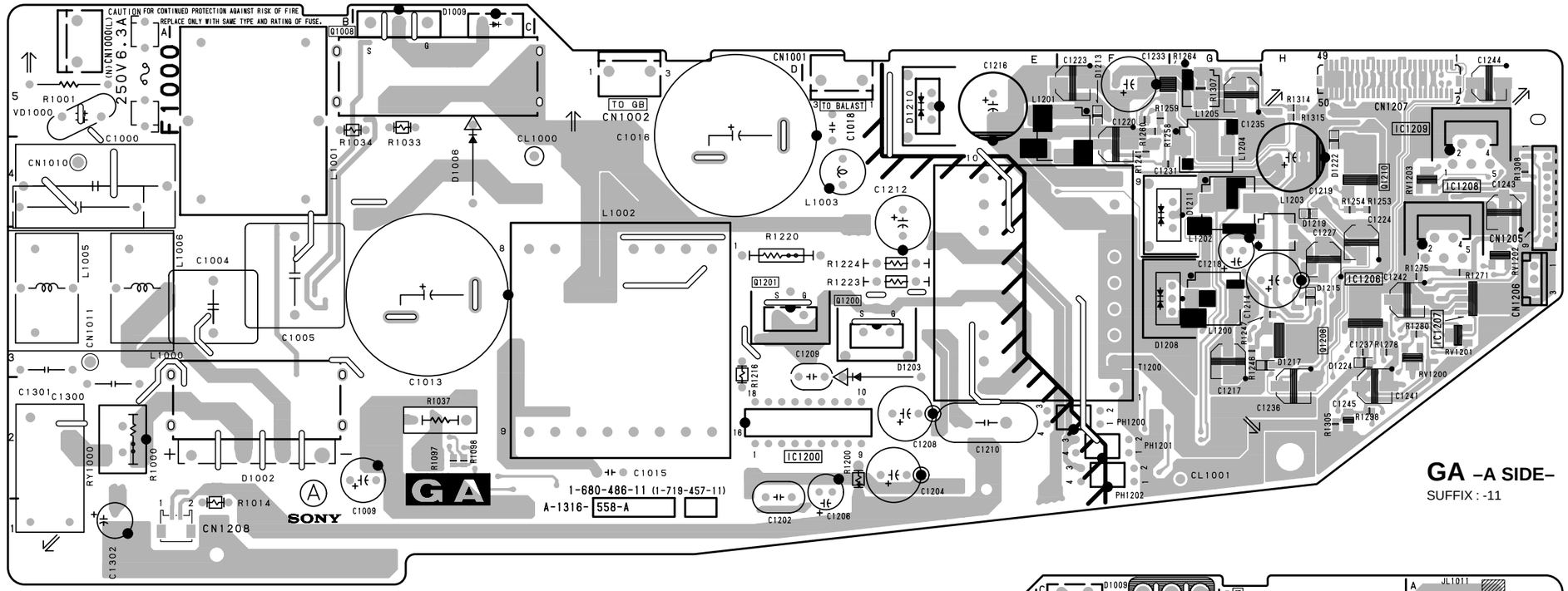
1-680-486-11

D1002	B-2
D1006	C-4
D1009	C-5
D1203	E-3
D1208	F-3
D1210	E-5
D1211	F-4
D1213	F-5
D1215	H-3
D1217	H-3
D1219	H-4
D1222	H-4
D1224	H-3
IC1200	E-2
IC1206	H-3
IC1207	H-3
IC1208	H-4
IC1209	H-4
Q1008	C-5
Q1200	E-3
Q1201	D-3
Q1206	H-3
Q1210	H-4



GA –A SIDE–
SUFFIX : -11

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GA
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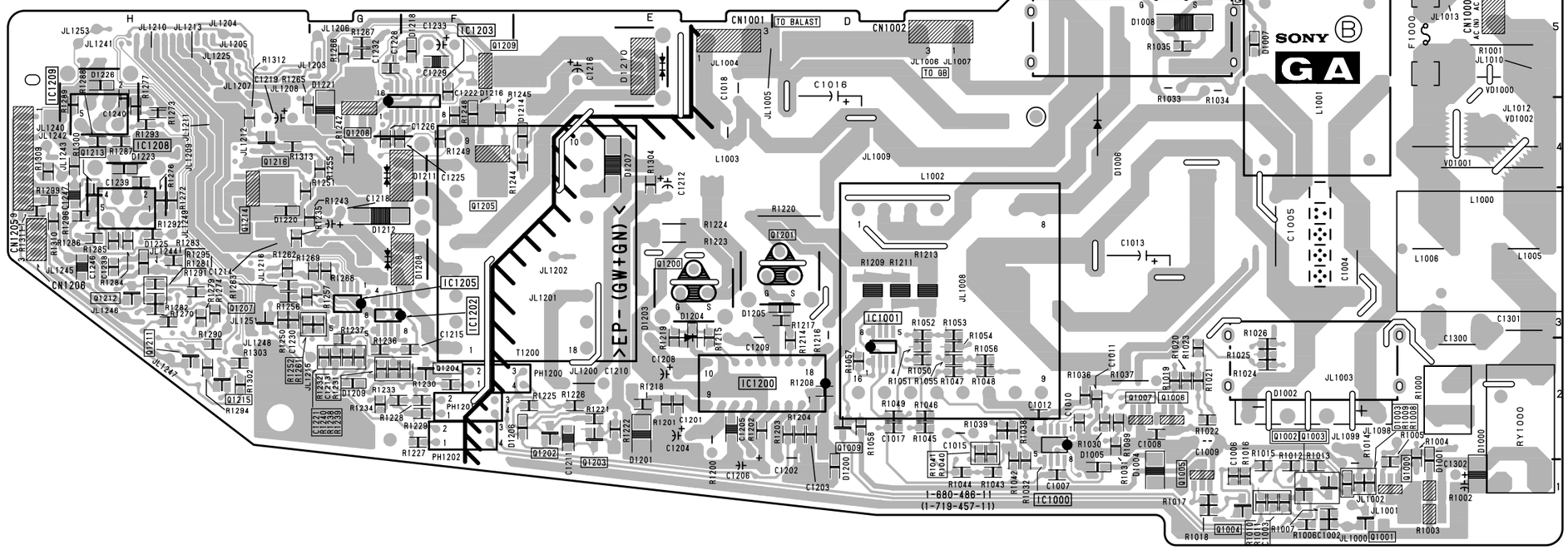
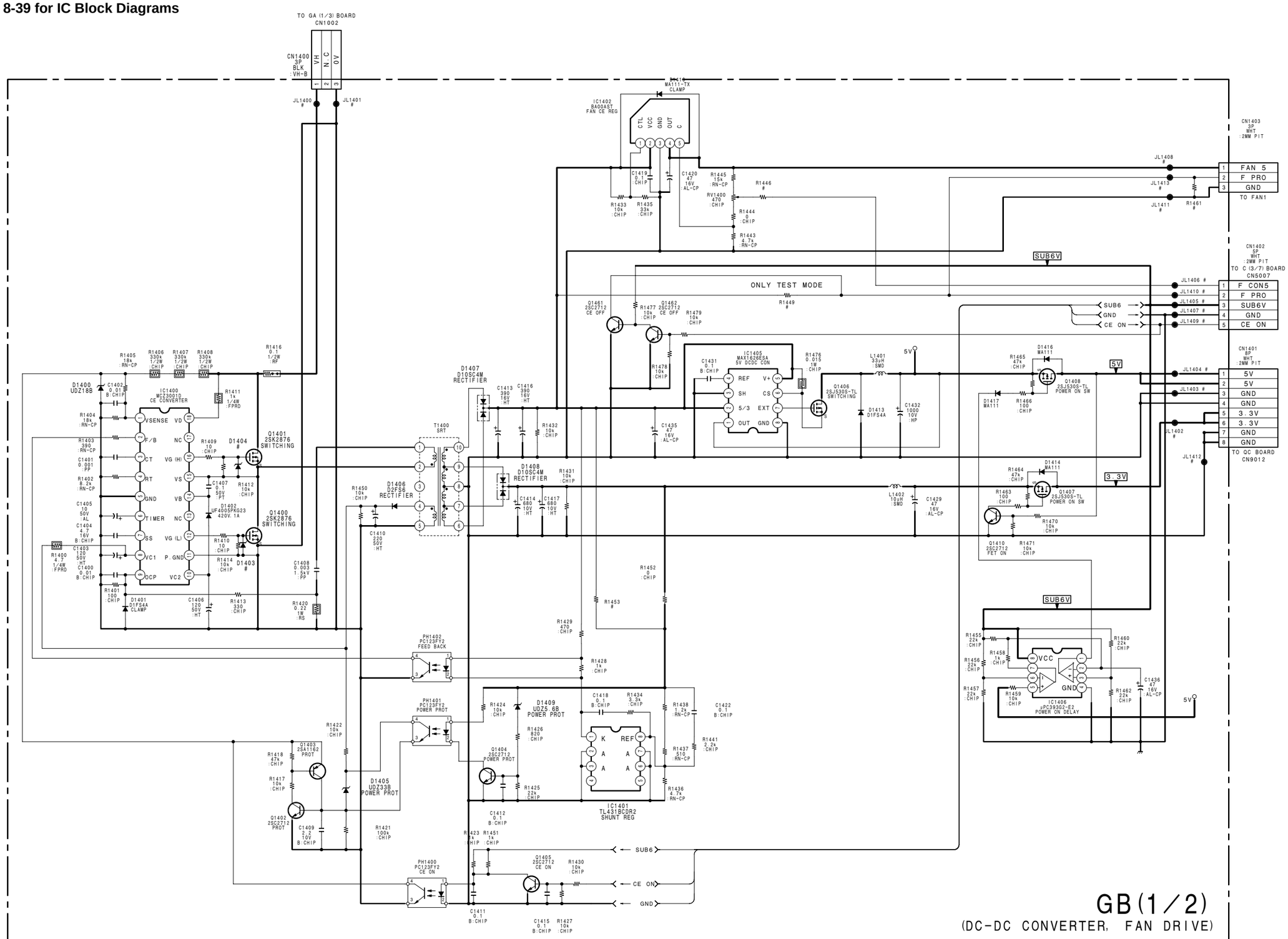
1-680-486-11

D1000	A-1	Q1000	B-1
D1001	A-2	Q1001	B-1
D1003	B-1	Q1002	B-1
D1005	C-1	Q1003	B-1
D1006	C-4	Q1004	B-1
D1007	B-5	Q1005	C-1
D1008	C-5	Q1006	C-2
D1009	C-5	Q1007	C-2
D1200	D-1	Q1009	D-2
D1201	E-1	Q1200	E-2
D1204	E-3	Q1201	D-3
D1205	D-3	Q1202	E-2
D1206	E-2	Q1203	E-2
D1207	E-4	Q1204	F-2
D1209	G-2	Q1205	F-4
D1210	E-5	Q1207	H-3
D1211	F-4	Q1208	G-4
D1212	G-3	Q1209	F-5
D1214	E-4	Q1211	H-2
D1216	F-4	Q1212	H-3
D1218	F-5	Q1213	H-4
D1220	H-3	Q1214	H-4
D1221	G-4	Q1215	H-2
D1223	H-4	Q1216	H-4
D1225	H-3		
D1226	H-5		
IC1000	C-2		
IC1001	D-2		
IC1200	E-2		
IC1202	G-3		
IC1203	F-4		
IC1205	G-3		
IC1208	H-4		
IC1209	H-4		

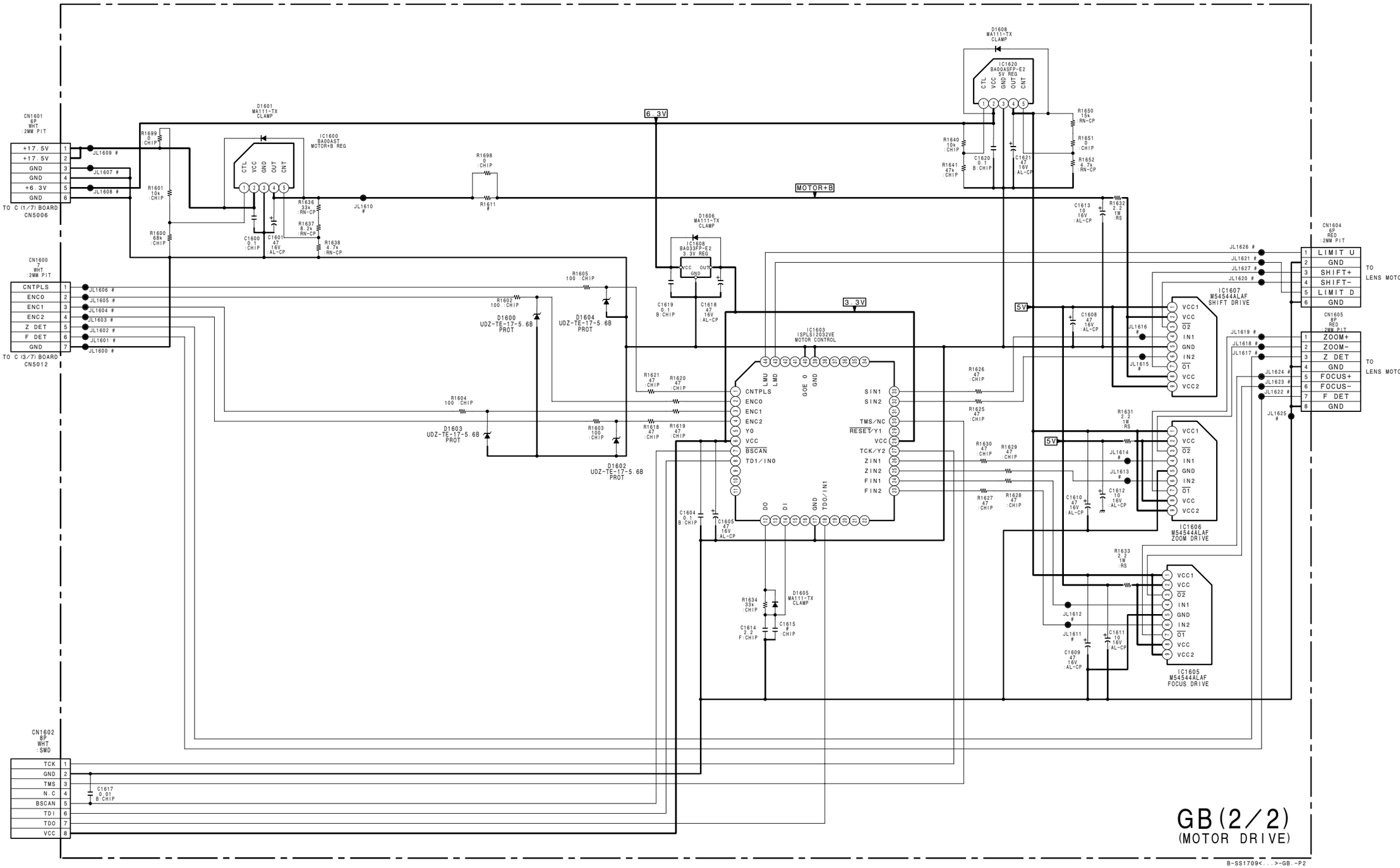


GA –B SIDE–
SUFFIX : -11

- **Refer to page 8-38 for Printed Wiring Board**
- **Refer to page 8-39 for IC Block Diagrams**



- **Refer to page 8-38 for Printed Wiring Board**
- **Refer to page 8-39 for IC Block Diagrams**



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GB
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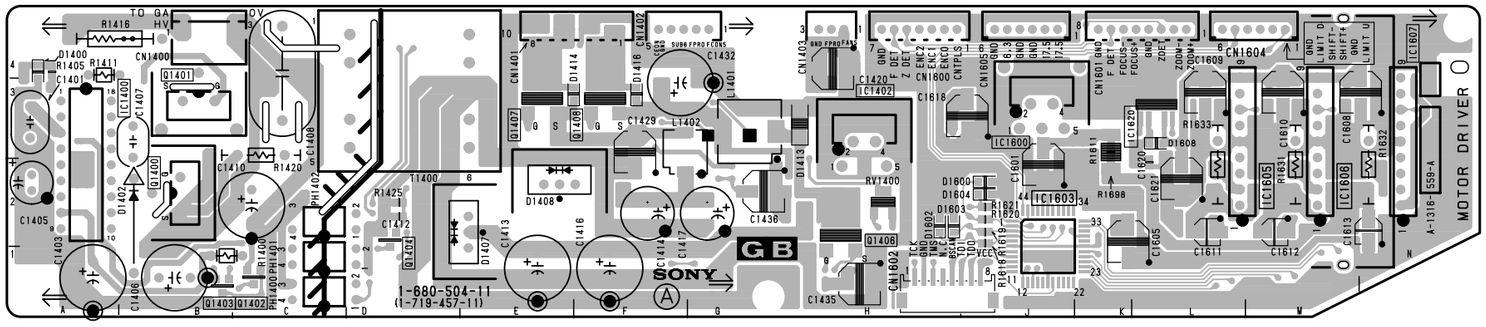
1-680-504-11

D1400 A-4
D1402 B-2
D1407 E-2
D1408 E-2
D1414 F-3
D1416 F-3
D1600 J-2
D1602 H-2
D1603 H-2
D1604 H-2
D1608 L-3

IC1400 A-2
IC1402 H-3
IC1600 J-3
IC1603 J-2
IC1605 L-3
IC1606 M-3
IC1607 N-3
IC1620 L-3

Q1400 B-2
Q1401 B-3
Q1402 C-1
Q1403 B-1
Q1404 D-2
Q1406 H-2
Q1407 E-3
Q1408 F-3



GB –A SIDE–
SUFFIX : -11

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GB
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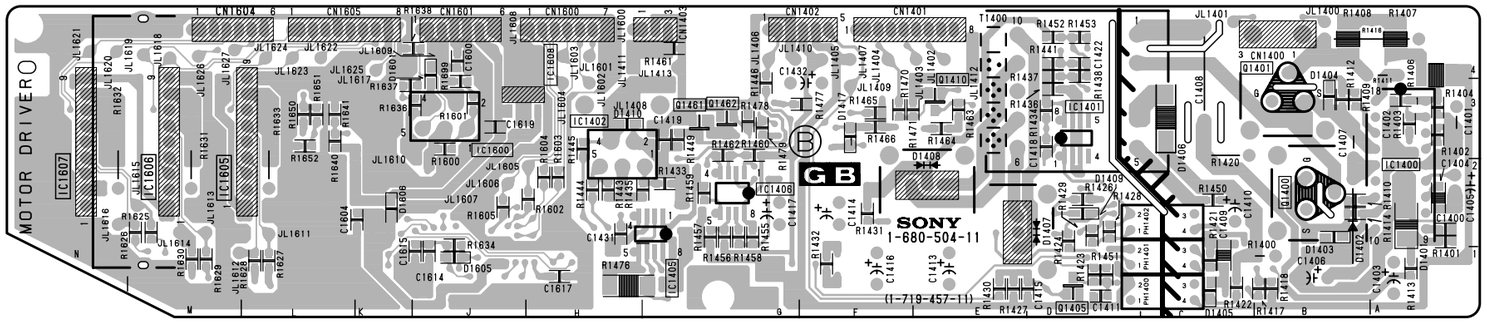
1-680-504-11

D1400 A-4
D1401 A-2
D1402 B-2
D1403 B-2
D1405 C-1
D1406 C-3
D1407 E-2
D1408 E-2
D1409 D-2
D1410 H-3
D1417 F-3
D1601 J-4
D1605 J-1
D1606 K-2
D1608 L-3

IC1400 A-2
IC1401 D-3
IC1402 H-3
IC1405 G-2
IC1406 G-2
IC1600 J-3
IC1605 L-3
IC1606 M-3
IC1607 N-3
IC1608 J-3

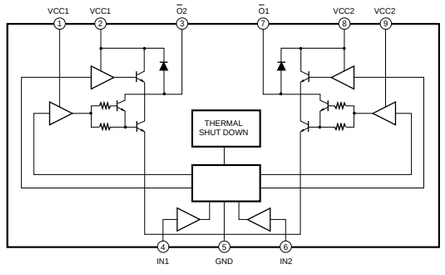
Q1400 B-2
Q1401 B-3
Q1405 D-1
Q1410 E-3
Q1461 G-3
Q1462 G-3



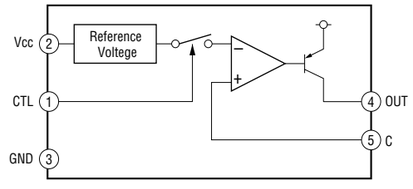
GB –B SIDE–
SUFFIX : -11

GB IC Block Diagrams

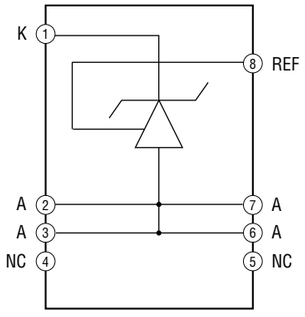
M54544ALAF(IC1605, 1606, 1607)



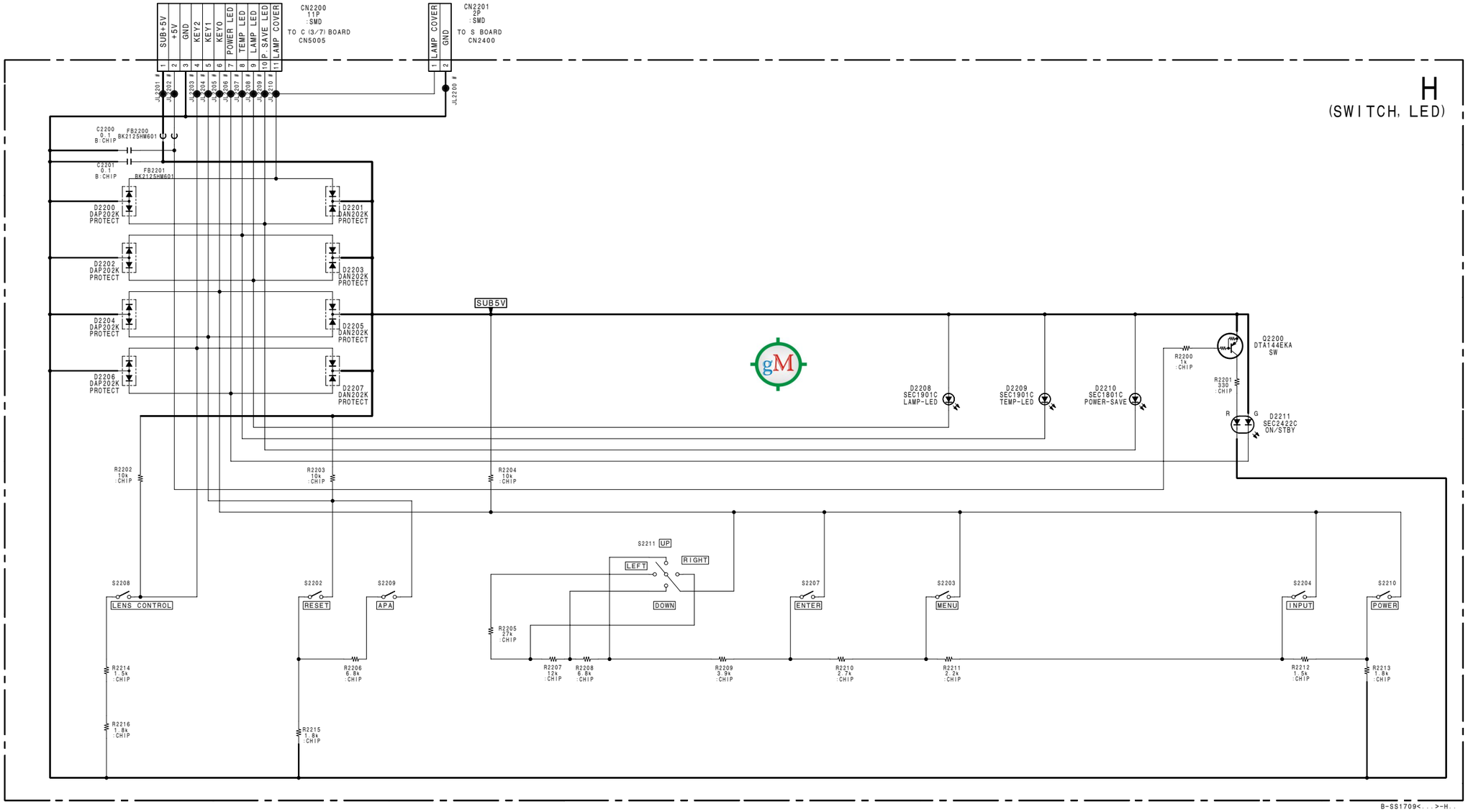
BA00AST(IC1402, 1600)



TL431BCDR2(IC1401)



• **Refer to page 8-41 for Printed Wiring Board**



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H
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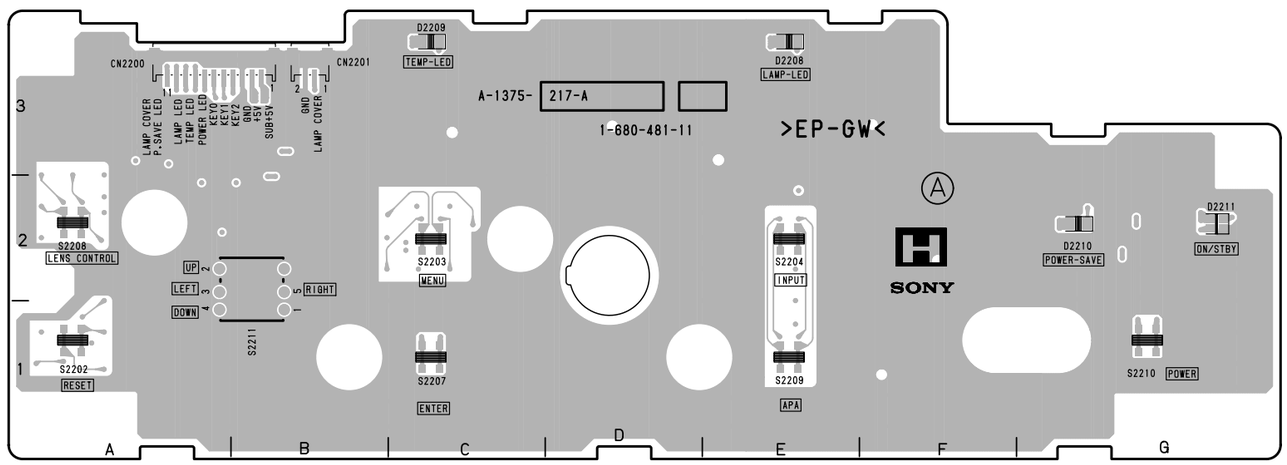
1-680-481-11

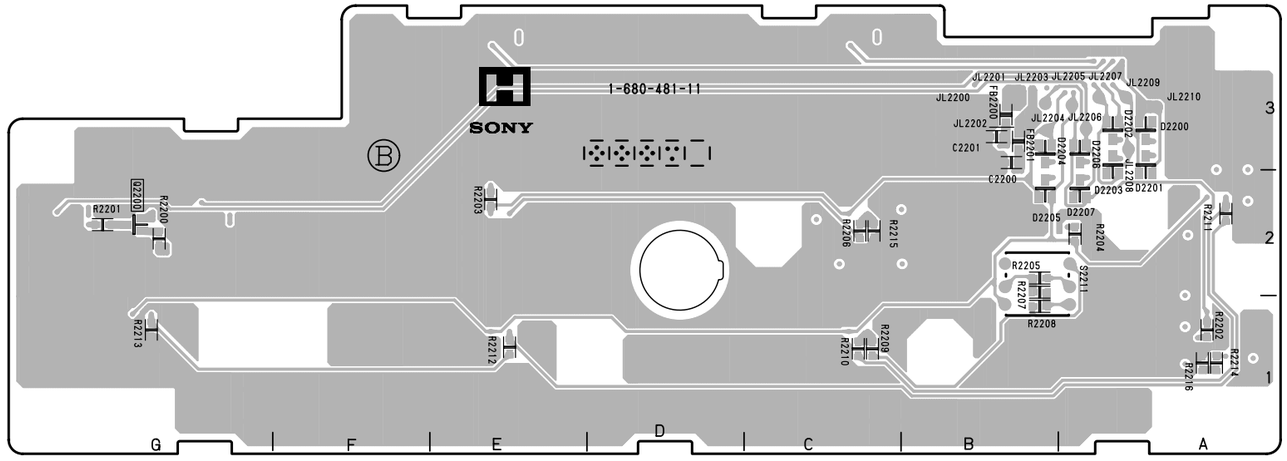
D2200 ＊A-3
D2201 ＊A-2
D2202 ＊A-3
D2203 ＊A-2
D2204 ＊A-3
D2205 ＊A-2
D2206 ＊A-3
D2207 ＊A-2
D2208 E-3
D2209 C-3
D2210 G-2
D2211 G-2

Q2200 ＊G-2

＊:B Side mount

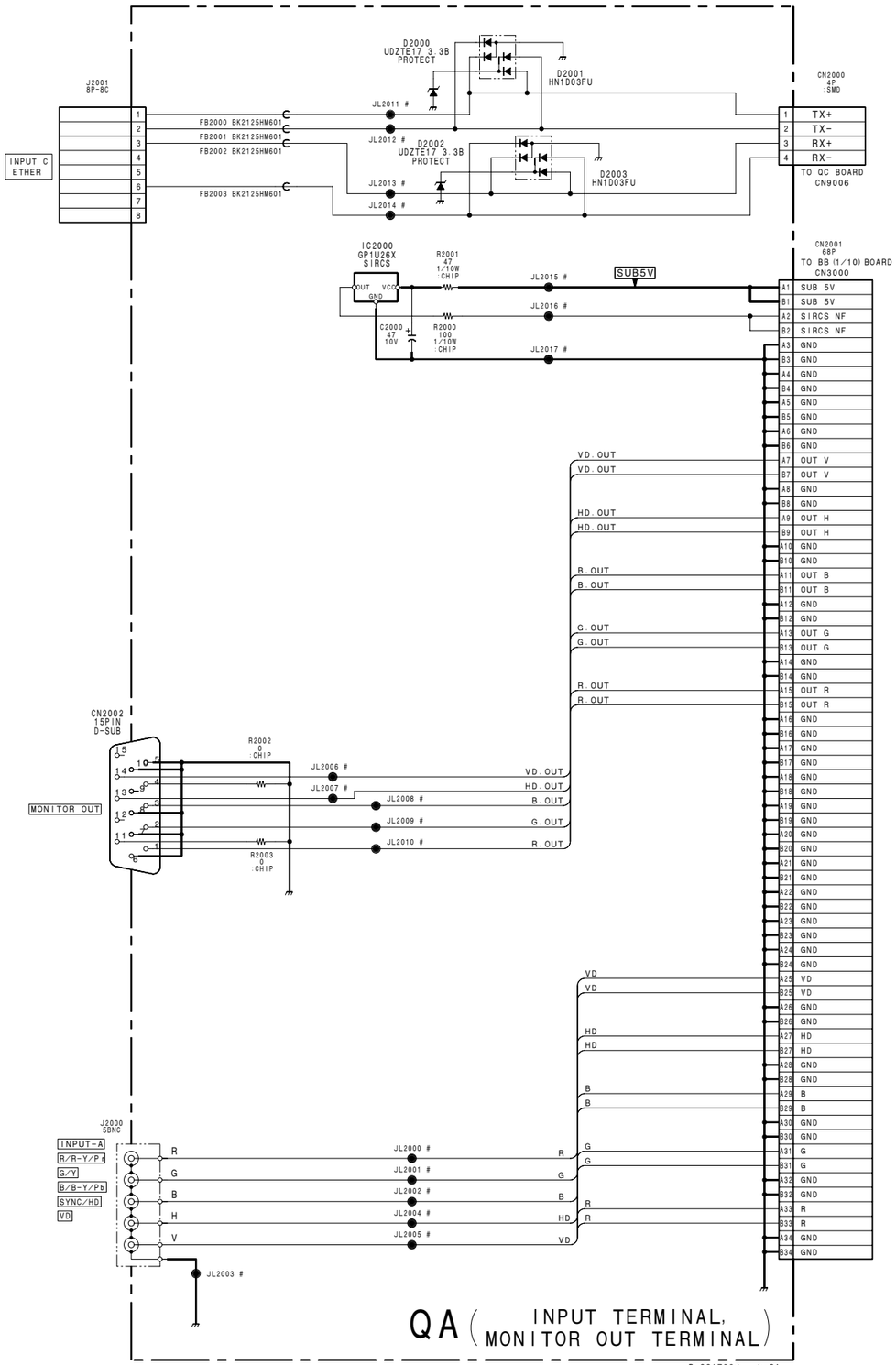


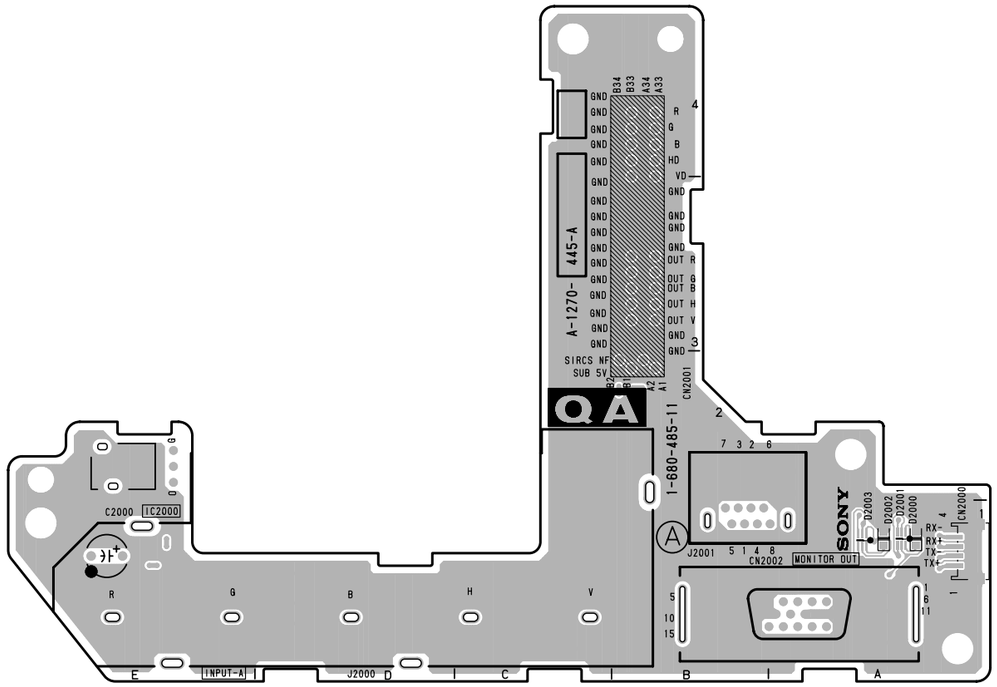
H –A SIDE–
SUFFIX : -11



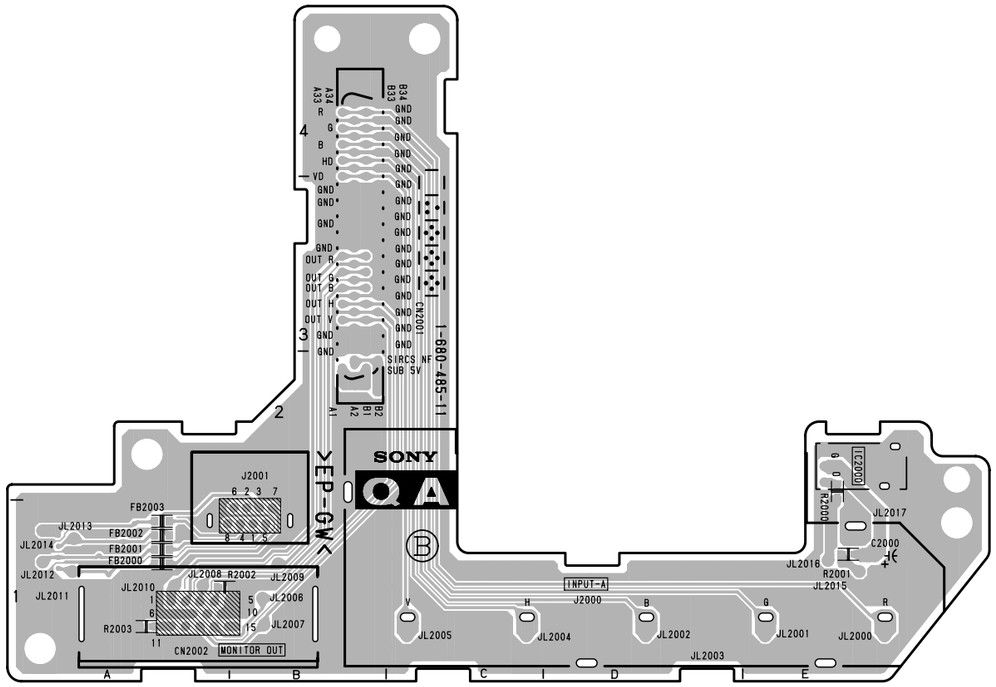
H –B SIDE–
SUFFIX : -11

• **Refer to page 8-43 for Printed Wiring Board**



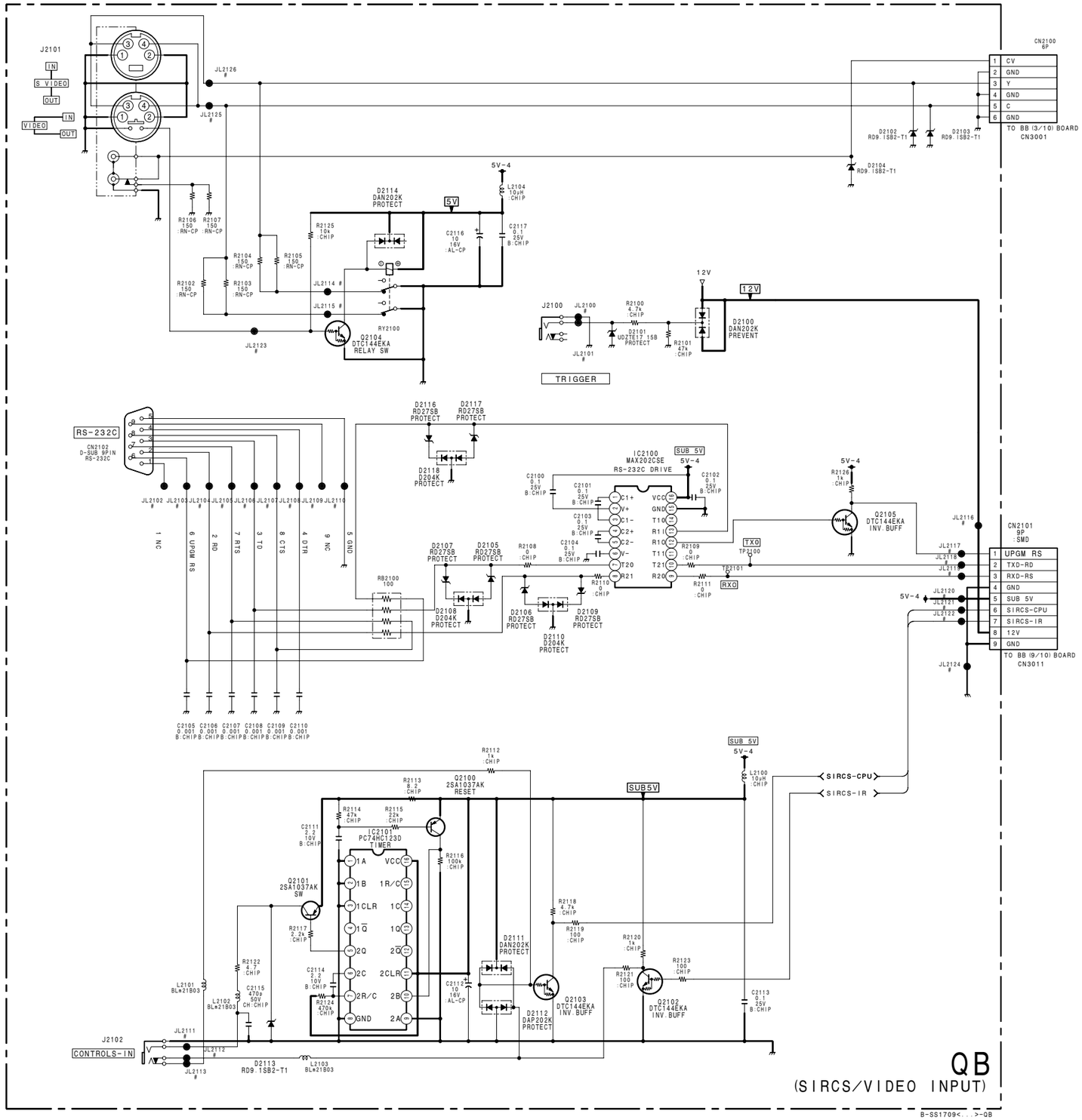


QA **–A SIDE–**
SUFFIX : -11



QA **–B SIDE–**
SUFFIX : -11

• Refer to page 8-45 for Printed Wiring Board



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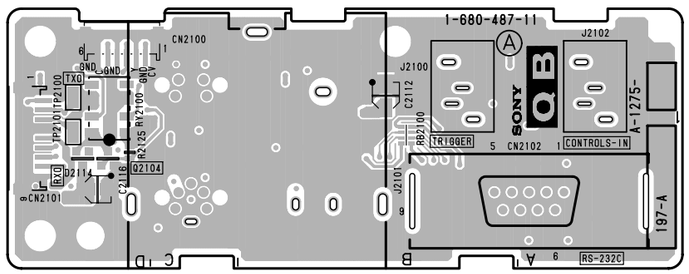
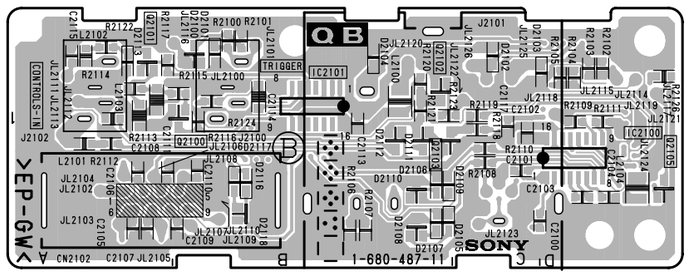


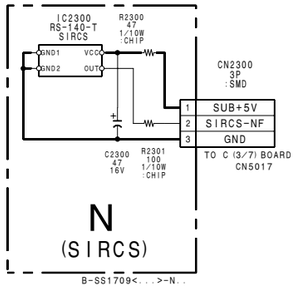
QB **–A SIDE–**

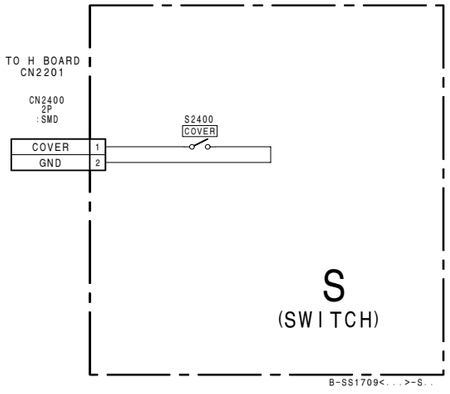
SUFFIX : -11

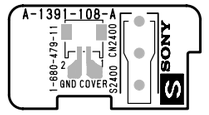


QB **–B SIDE–**

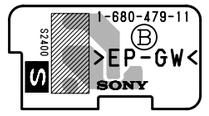
SUFFIX : -11



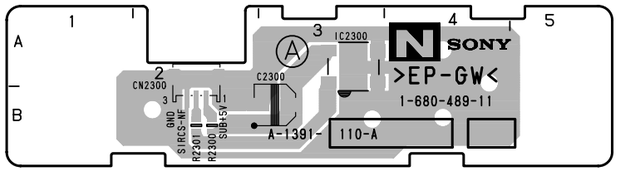




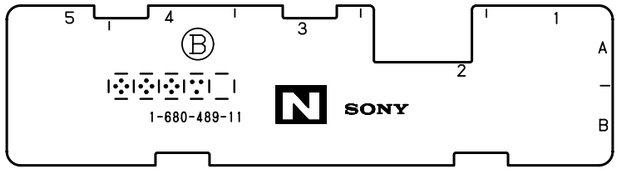
S –A SIDE–
SUFFIX : -11



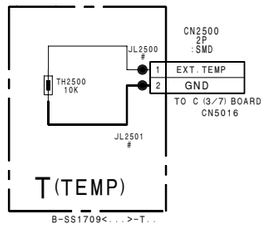
S –B SIDE–
SUFFIX : -11



N –A SIDE–
SUFFIX : -11



N –B SIDE–
SUFFIX : -11



8-46

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer :

Check the metal trim, “metallized” knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 3.5 mA. Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers’ instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The “limit” indication is 5.25 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 20 V AC range are suitable. (See Fig. A)

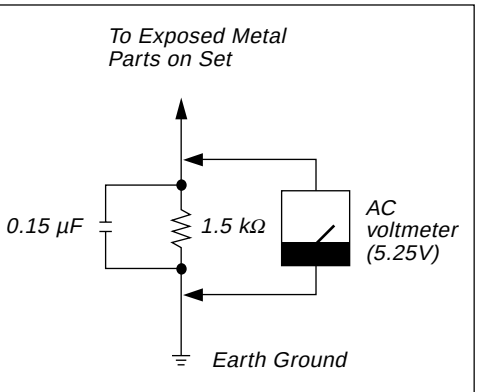


Fig A. Using an AC voltmeter to check AC leakage.

English
01BZ08-1
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